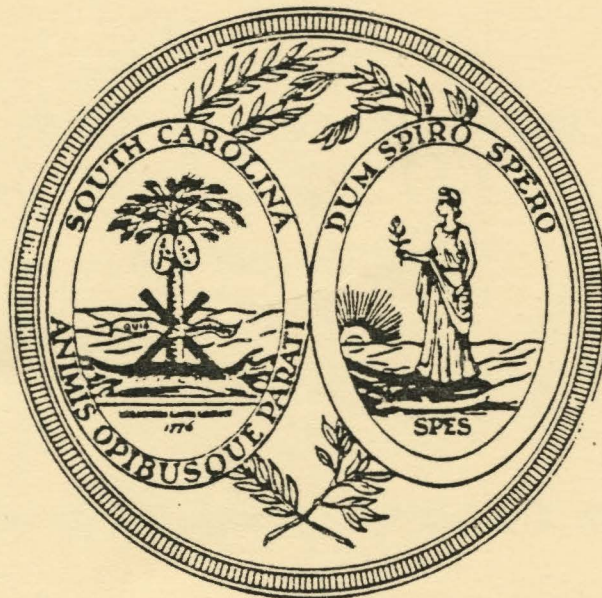
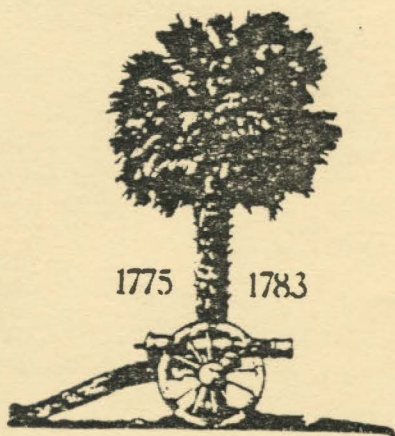


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South Carolina General Assembly



Legislative Audit Council



South Carolina General Assembly
Legislative Audit Council
Management and Performance
Review of the
Medical University of South Carolina
March 22, 1979

THE STATE OF SOUTH CAROLINA

GENERAL ASSEMBLY

LEGISLATIVE AUDIT COUNCIL

MANAGEMENT AND PERFORMANCE REVIEW

OF THE

MEDICAL UNIVERSITY OF SOUTH CAROLINA

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BACKGROUND

The Medical College of South Carolina, the oldest medical school in the South, was founded in 1824 under the auspices of a Charleston medical organization. In 1913 ownership of the school was transferred to the State of South Carolina, and in 1969 the Medical College was renamed the Medical University of South Carolina. The legislated intent of the University is "that this institution will limit its programs to those in the health area."

During the past five years the number of personnel employed at MUSC has grown 45% from 3,394 to 4,929. At the end of FY 73-74 the University reported 2,696 classified employees and 698 unclassified employees while at June 30, 1978 MUSC had a total of 3,414 classified employees and 1,207 unclassified employees. In addition, at the end of FY 77-78 MUSC reported 308 positions that were vacant.

The University's organization, as depicted in Table 1, is divided into nine major sections. These sections are self-explanatory with the possible exceptions of academic support, institutional support, auxiliary enterprises and student services. Academic support includes the Deans' offices of the six colleges, the Departments of Audio Visual Services, Laboratory Animal Medicine, the Learning Resources Center, as well as the library. Institutional support encompasses the executive and administrative functions of the University not delegated to the six colleges such as the President's Office and the Accounting, Purchasing and Personnel Departments. The Auxiliary Services Section includes the MUSC dormitory and the Campus Bookstore while Student Services consists of the student health services, pastoral services, the registrar and the student affairs coordinator.

Over the past five years, the Medical University's State appropriations rose 59.9% from \$30.9 million to \$49.4 million. Table 2 illustrates the sources and uses of funds at MUSC for five years ending June 30, 1978.

In academic year 1973-1974, MUSC awarded 292 professional degrees at a cost of \$14,272,032 in instructional expenses. Table 3 illustrates the growth in institutional expenses over the past five years for the Colleges of Medicine, Dental Medicine, Pharmacy and Nursing.

TABLE 1

MEDICAL UNIVERSITY OF SOUTH CAROLINA ORGANIZATION

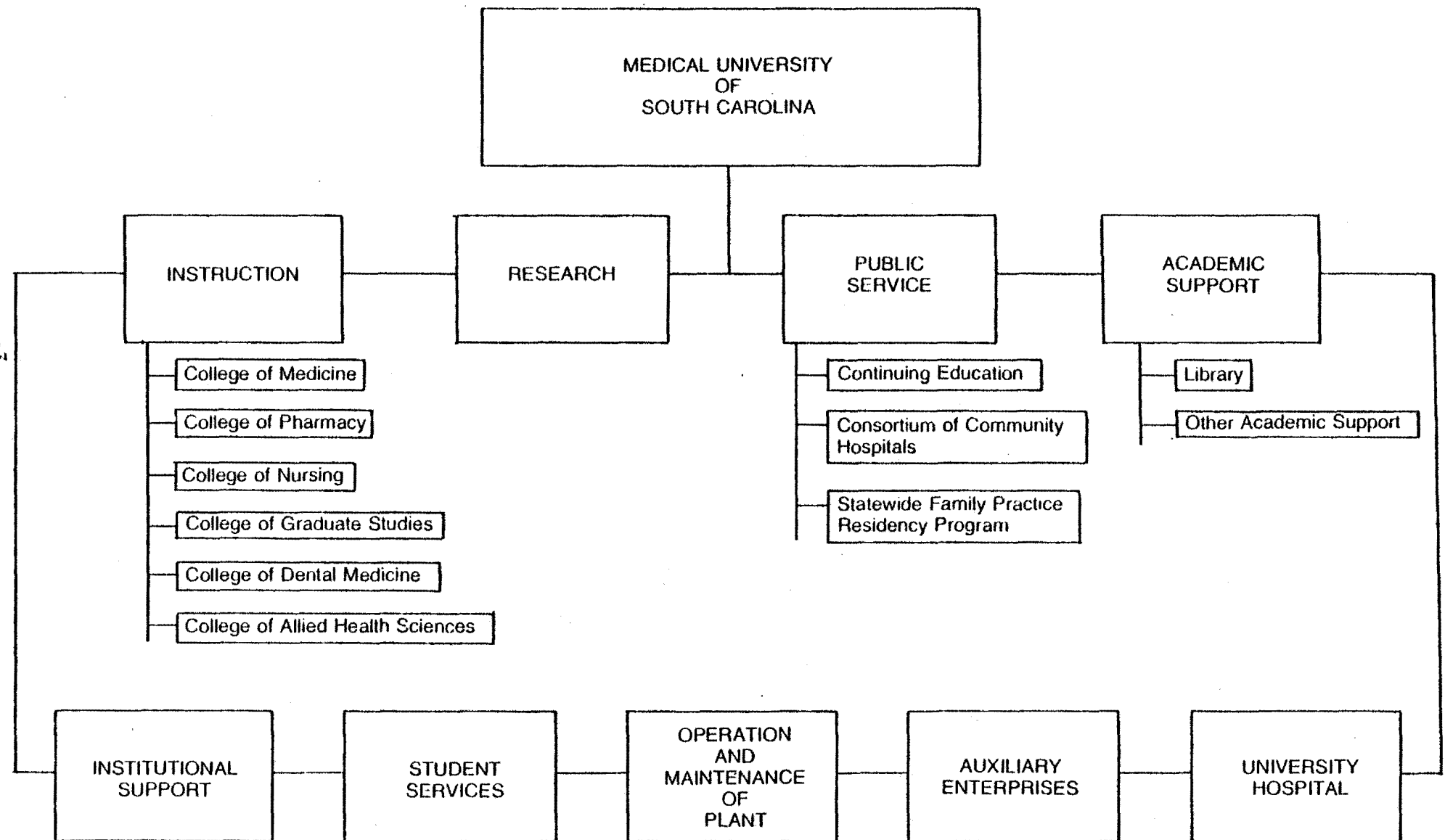


TABLE 2

MUSC SOURCE AND APPLICATION OF FUNDS

FY 73-74 to FY 77-78

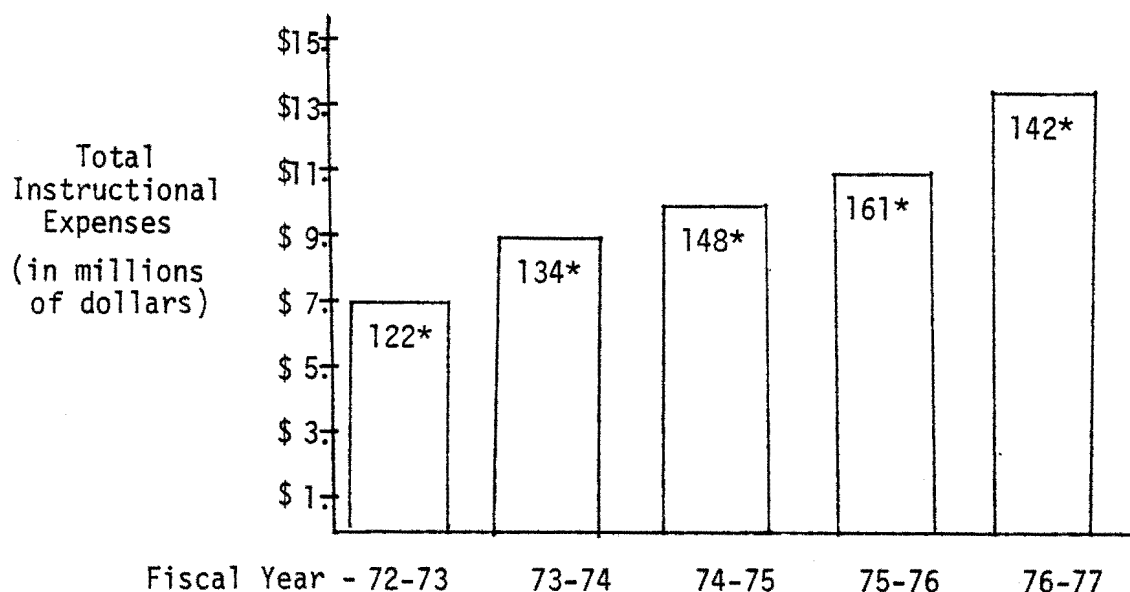
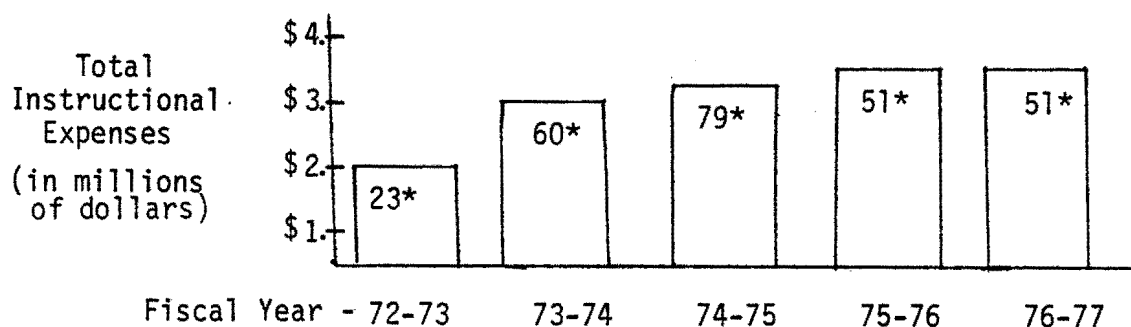
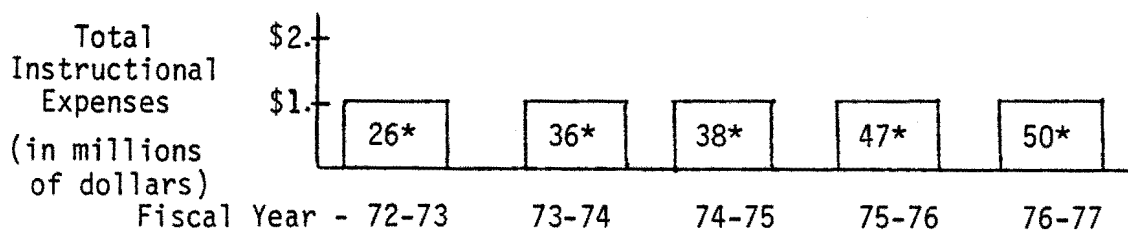
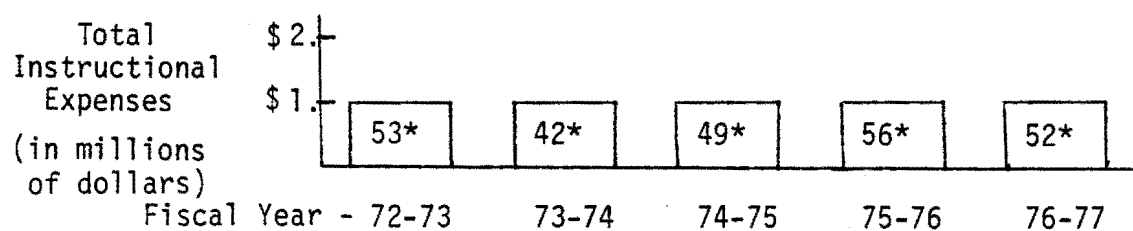
	<u>FY 73-74</u>	<u>FY 74-75</u>	<u>FY 75-76</u>	<u>FY 76-77</u>	<u>FY 77-78</u>
Expenditures					
Instruction	\$13,222,078	\$15,271,827	\$16,401,206	\$18,903,259	\$22,070,948
Research	319,210	308,501	387,654	4,064,814	4,998,530
Public Service	1,499,425	4,419,435	4,618,099	7,669,309	8,313,996
Academic Support	1,186,911	2,341,969	2,354,855	4,029,376	4,557,238
Student Services		321,536	406,032	387,343	600,251
Institutional Support	2,363,078	3,078,283	2,928,241	3,780,186	4,078,009
Operation & Maintenance of Plant	3,086,437	3,308,528	3,230,016	4,207,259	4,047,956
Hospital & Clinics	26,060,348	31,717,513	34,876,674	39,701,244	46,728,865
Auxiliary Service				508,688	577,799
Total Budgeted Expenses	<u>\$47,737,487</u>	<u>\$60,767,592</u>	<u>\$65,202,777</u>	<u>\$83,251,478</u>	<u>\$95,973,592</u>
Revenue Retained & Expended in					
Non-Budgeted Operations	12,301,414	14,705,734	13,144,264	130,494	
Indebtedness Expenditures	<u>1,523,829</u>	<u>1,989,292</u>	<u>1,637,796</u>	<u>4,896,019</u>	<u>644,485</u>
Total Expenses	<u>\$61,562,730</u>	<u>\$77,462,618</u>	<u>\$79,984,837</u>	<u>\$88,277,991</u>	<u>\$96,618,077</u>
Revenues					
State Appropriations					
Balance From Prior Year		\$ 3,352,988	\$ 2,000,000	\$ 1,243,144	\$ 48,389
Appropriations	\$30,957,494	37,284,277	38,838,202	39,356,307	49,414,379
Lapsed	(54,595)	(3,586)	(22,900)		
Carried Forward	(3,352,988)	(2,000,000)	(1,243,144)	(48,389)	(303,974)
Federal Funds	6,921,729	12,452,247	11,324,184	9,865,510	8,827,711
Other Funds					
Balance From Prior Year	9,107	83,773	3,951,728	1,726,755	310,009
Receipts	27,165,756	27,497,351	29,584,693	36,444,673	38,355,538
Carried Forward	(83,773)	(1,204,432)	(4,447,926)	(310,009)	(33,975)
Total Revenue	<u>\$61,562,730</u>	<u>\$77,462,618</u>	<u>\$79,984,837</u>	<u>\$88,277,991</u>	<u>\$96,618,077</u>

Notes:

- (1) Source of information State budget documents.
- (2) This statement not audited by IAC, annual audit of MUSC performed by Deloitte, Haskins and Sells, CPA.
- (3) Because all funds were not required to be shown in the budget until actual expenditures were shown for FY 76-77 year-to-year comparisons of growth for Federal and other funds are not accurate from

TABLE 3

GROWTH IN INSTITUTIONAL EXPENSES COMPARED TO NUMBER OF DEGREES CONFERRED

College of MedicineCollege of Dental MedicineCollege of PharmacyCollege of Nursing

* Denotes the number of degrees conferred.

REPORT SUMMARY

Introduction

In June 1977 the Legislative Audit Council was requested to conduct an investigation of the Medical University of South Carolina. This request centered on allegations of fraud in equipment purchasing, improper dismissal of high-ranking agency officials, embezzlement, and the firing of a weapon in the President's Office. In September 1977 the Ways and Means Committee of the South Carolina House of Representatives requested "a comprehensive audit of the entire Medical University's operations."

In complying with these requests the Audit Council examined areas of legislative concern related to compliance with laws and regulations, efficiency of operations and the achievement of mandated goals. The Council reviewed pertinent State and Federal laws, rules and regulations, and MUSC policies and procedures. Operational efficiency was measured by comparing MUSC's accounting, information and records systems, and management practices to those used by other State agencies, public and private hospitals, and private businesses. National and statewide health, professional and educational information was utilized to develop a performance profile of Medical University education programs.

Following this summary, the body of the report is divided into four chapters. Chapter I concerns the management of the Medical University of South Carolina. Chapter II contains management information also, but the problems examined affect other State agencies in addition to the Medical University or the provision of services statewide.

The educational performance of the Colleges of Medicine, Dental Medicine, Pharmacy and Nursing is addressed in Chapter III, while Chapter IV is concerned with the allegations cited in the request for this audit.

Agency Management (Chapter I, p. 22)

The Legislative Audit Council found that the Medical University of South Carolina needs to improve its accountability to the General Assembly by becoming more responsive to State and Federal laws, regulations, and managerial policies and procedures. In addition, the Medical University has not taken adequate action to correct management weaknesses identified in the past.

Historically, the Medical University has been comparatively independent due to its funding structure and its functions. As a "lump sum" agency, Medical University administrators have more latitude in transferring funds among expenditure categories. This does not indicate any intent by the Legislature that MUSC be exempt from or have any less regard for the laws and regulations of the State and Federal Government. Also, since the Medical University is mandated to train health professionals, many agency administrators, especially at the Department level, are medical doctors, nurses, etc.

The use of public funds carries with it implicit responsibilities to use these funds as mandated, to comply with laws and regulations regarding their use and to provide a complete and accurate accounting of agency activities and expenditures. Failure to fulfill these responsibilities has several effects. First, the General Assembly does not have

complete and accurate knowledge concerning the activities and expenditures of an agency operating under the laws it enacts. Under these circumstances, legislative decision-making can be hampered and legislative oversight avoided. Second, non-compliance with laws and regulations can result in legal action, audit exceptions requiring repayment of funds, and/or termination of programs. Finally, the taxpayers, who provided the Medical University with \$96.6 million in FY 77-78, cannot be ensured that their tax dollars are being spent in such a way as to improve health care and train health care professionals in the most effective and economical manner possible.

During the course of this audit, the Legislative Audit Council found numerous examples of poor management decisions to support the conclusion that the Medical University needs to be more accountable to the General Assembly and responsive to laws, regulations and good management principles.

- (1) Record-keeping practices for the Capital Improvement Program were found to be inadequate. Files were not orderly and in some cases documentation to justify pay increases for architects was unclear. The Council found capital improvement projects to have been managed in violation of State laws and regulations. A \$224,000 Quadrangle Building renovation never received proper approval and contractor was not subject to the competitive practices required by law. In addition, MUSC failed to require adequate performance standards of an architect resulting in an excess cost of up to \$136,007. (p. 22)

- (2) The Council's investigation disclosed that the Division of Pharmaceutical Services is in violation of State and Federal laws and regulations regarding the control of narcotics, and that purchasing and inventory practices are inefficient and inadequate. Examples of drugs found to be missing or unrecorded by the Council's test of inventory control systems included Cocaine, Quaaludes, Dexedrine, and Morphine. Overall, the Pharmaceutical Services Division fails to meet legal requirements and minimum management standards (p. 34). This finding also has statewide implications and is discussed further in Chapter II (p. 104).
- (3) Medical University "entertainment" accounts have been misused and improperly controlled. The Council examined \$44,708 in twenty-four accounts, or 59% of the \$75,992 encumbered for "entertainment" during FY 77-78. Expenditures of \$38,689 were made in a manner inconsistent with the purpose of "entertainment" accounts or inadequately documented as to use. (p. 45)
- (4) An examination of the Medical University's procurement and control of its aircraft revealed numerous areas of questionable practice. The Council found violations of Federal Regulations regarding competitive bidding. In addition, MUSC's ownership of the aircraft is questionable. The Medical University failed to comply with State law requiring a preference of purchases from businesses in South Carolina, and has not adequately monitored the operating cost of the aircraft. Erroneous information concerning the contract was supplied to the Governor of South Carolina. (p. 48)

- (5) The property inventory system used by the Medical University fails to account properly for the agency's \$29.4 million total property inventory. The Council selected a statistically valid random sample of Medical University property and determined that 78% of the sample could not be positively identified. Strict inventory control is required by State law (S. C. Code 10-1-140) and Federal Regulations (Federal Management Circular 74-7). This problem was pointed out by the State Auditor in 1974, but the Medical University has failed to solve the system's problems. (p. 58)
- (6) The Medical University of South Carolina failed to report \$2.2 million as carryforward from sources other than State and Federal funds at the end of FY 77-78. By not reporting these carryforward funds, the Medical University violated State regulations and denied the General Assembly a complete and accurate accounting of the agency's fiscal position. (p. 62)
- (7) A review of purchasing practices at the Medical University disclosed several examples of inefficiency and deviation from required State practices. First, supplies were purchased for the Physical Plant at higher prices than necessary. Purchase orders indicated that several vendors are "favored" over others in the area. Examination of a sample of vendors showed that prices charged by these "favored" vendors were about 25% higher than their competitors. Second, the Medical University spent excessive amounts of money for equipment at the end of the fiscal year. Finally, beds for the University's Hospital were procured in violation of State purchasing regulations regarding efficiency, agency authority to purchase, and rejection of substandard goods. (p. 64)

- (8) Compared to other counties in the State, Charleston County benefits inequitably from State-supported services provided to local indigent patients by the Medical University Hospital. During FY 77-78, the Medical University spent \$6.2 million for indigent health care for Charleston County. As a result, the State subsidized Charleston County tax revenues. (p. 72)
- (9) Inadequate efforts have been made to collect defaulted student loans. As of July 31, 1978 fifty-eight student loans totalling \$25,587 were in default (no payment within 120 days of last due date). Of this amount, \$15,840 is owed by Medical University graduates whose professional training should make repayment easy. (p. 74)
- (10) The Medical University receives more than \$1 million a year in revenues from the Professional Staff Office (PSO), the organization established by the University allowing faculty members to supplement their income by practicing medicine. Funds received from the PSO are excluded from the internal budgetary process. Of this amount, about \$250,000 goes directly into accounts maintained by the MUSC President and by the Dean of the College of Medicine while the remaining funds go into separate accounts in the different departments of the College of Medicine. (p. 79)
- (11) A review of the intra-institutional transfer (IIT) process revealed several accounting control weaknesses. The Council found a lack of consistent classification of departmental expenses on IIT's

throughout the University. The Accounting Department is processing incomplete IIT forms and evidently has no monitoring process to point out irregularities. The cumulative effects of these accounting deficiencies weaken the overall confidence and control within the system. (p. 81)

- (12) Medical University faculty, employees, and hospital interns and residents are allowed illegal discounts for services received at the Medical University Hospital. This practice is in violation of State law prohibiting perquisites or additional benefits to employees of the State. Discounts of these types totalled \$103,628 in FY 77-78 and were "written off" in the same manner as bad debts. (p. 88)
- (13) An analysis of conformity to State personnel regulations showed that as of September 1978 the Medical University was delinquent in maintaining the required merit review (or performance appraisal) dates of 173 classified employees. (p. 89)
- (14) The Council's examination of nepotism revealed three problem areas. First, one instance of a violation of Medical University personnel policies was noted. Second, there is a lack of policy regarding unclassified employees supervising relatives who are also unclassified. Finally, the interpretation of S. C. Code 8-5-10 exempting the Medical University of South Carolina, as well as lower management positions in all State departments, from the nepotism statute indicates the need for an improved statewide nepotism policy. (p. 91)

(15) An employee of the Medical University received wages not due to him from the State of South Carolina, and the employee's supervisor signed erroneous time sheets on his behalf. This employee has been registered as a full-time student for the past ten months. During this period some of his courses were taken during working hours while receiving all the wages and benefits of full-time employment. (p. 96)

Management Findings with Statewide Implications (Chapter II, p. 98)

The Legislative Audit Council found that several of the management problems identified at the Medical University of South Carolina could either occur at other State agencies or affect the provision of government services statewide. In a number of cases, State laws, regulations and policies could be strengthened so as to improve overall accountability and agency operations.

Legislative Oversight of Capital Improvements

State-level accountability for capital improvement needs to be strengthened to allow adequate legislative oversight. During the review of MUSC's Capital Improvement Program, the Council noted two weaknesses in the State's system. First, some Bond Acts are written in such general terms that efforts to determine how the Legislature intended the funds to be used are futile. For example, Bond Act 354 of 1973 authorized MUSC \$13.4 million stating only "Education Facilities," and Bond Act 1294 of 1974 authorized MUSC \$5 million stating only "Renovation and Equipment." Bond Acts are the basis for legislative direction and oversight. When the purposes of an Act are unclear, administration, monitoring, and auditing become difficult or impossible and the system

becomes open to undetectable changes in the way bond money is used. The end result is a reduction of legislative control and a loss of legislative oversight.

Second, the existing State-level system only monitors total funds authorized by all Bond Acts for an agency. Funds drawn by State agencies against Capital Improvement Bond Acts are not accounted for at the State level by individual Bond Act. This means that at the State level, the amount of funds used by an agency from a specific Bond Act is not known. Therefore, individual Bond Acts can be over-obligated and the funds used for purposes other than those specified in the Act. (p. 98)

Distribution of Funds for Indigent Health Care

Both State and county funds for indigent health care are distributed inequitably throughout South Carolina. At the State level the Medical University spent \$6.2 million to provide health care to Charleston County indigents. As a result, State funds subsidized Charleston County tax revenues with funds from taxpayers in other counties.

In addition, counties throughout the State that support hospitals through property taxes (e.g., Richland, Greenville) appear to be subsidizing health care for indigents from surrounding counties that do not have public hospitals. (p. 103)

Inspection of Pharmacies

Violations and inefficiencies found at the Medical University Division of Pharmaceutical Services could be occurring in other pharmacies operated by the State. The Narcotic and Drug Control Division of the

Department of Health and Environmental Control does not conduct complete audits of State institutions. In the absence of independent audits and inspections, the major inventory and control mechanism does not exist. (p. 104)

Perquisites and Benefits for State Employees

The Council found that a number of State agencies provide benefits or perquisites for their employees. These include free or discounted meals, free parking, free or discounted medical care, commissary privileges, housing, clothing allowances, etc. Such perquisites are in violation of State law and result in increased expense to the State. In addition, this practice runs counter to a major purpose of the State personnel system which is to ensure equal treatment and benefits for all State employees. (p. 105)

Educational Programs (Chapter III, p. 107)

The Legislative Audit Council evaluated the educational effectiveness of four of the six colleges at the Medical University (College of Medicine, College of Dental Medicine, College of Pharmacy, and College of Nursing). The College of Allied Health Sciences was excluded because of the large number of programs in its curriculum. The College of Graduate Studies was excluded because of its small size.

Three areas were selected for comparison as measures of the educational effectiveness of the four colleges. The first area examined was retention of graduates. "Retention" is the percentage or number of graduates remaining in or returning to South Carolina to practice. Retention of health professionals reveals what kind of return on its

investment South Carolina's taxpayers are getting by supporting the Medical University. The University can influence retention through such factors as admissions policies, knowledge of State needs, understanding of student career plans, and curriculum planning.

Performance of students and graduates on national professional examinations is the second means of assessing the effectiveness and quality of education programs. When possible, the Council compared Medical University test scores with national and regional scores to indicate relative educational effectiveness. Such scores, when studied over a period of time, also reveal trends of improvement or deterioration in performance.

National professional accreditation status is a third indicator of the educational effectiveness of the Medical University. Professional accreditation by an official accrediting agency is a voluntary process. Its major purpose is to provide a professional judgment by peers of the quality of the educational program offered. The professional accreditation status of each of the four colleges is discussed.

College of Medicine

The College of Medicine has achieved substantial improvement in recent years. For many years, the medical school was below average in the performance of its students on national examinations before, during and after their medical education. Presently, the performance of students is approaching the average performance of all United States medical students. (p. 111)

College of Dental Medicine

The College of Dental Medicine is the newest college of the four examined in this report. Present indicators show that Medical University dental students perform at the average level for all dental students, both in qualifications of entering students and the performance of students on national examinations taken during their dental education.

(p. 120)

College of Pharmacy

Student scores on national exams have increased slightly in recent years, yet remain somewhat below national average scores. (p. 133)

College of Nursing

The College of Nursing has perhaps the strongest program of the four colleges. Student scores on the national examination are generally above the national and South Carolina average. However, a lack of national comparative information prevented accurate comparisons with nursing schools in other states and made a more in-depth analysis difficult. The College of Nursing's current accreditation period is the longest possible. This indicates confidence on the part of the accreditation organization. (p. 139)

TABLE 4
SUMMARY OF PERFORMANCE

	<u>Retention</u>	<u>National Examinations</u>	<u>Accreditation</u>
College of Medicine	AA	BA	A
College of Dental Medicine	N/A	A	A
College of Pharmacy	N/A	A	A
College of Nursing	N/A	AA	AA

N/A - Not Available
A - Average
AA - Above Average
BA - Below Average

Review of Allegations (Chapter IV, p. 148)

The Council examined various allegations concerning the operation and activities of MUSC. A concise statement of the allegation and the Council's investigation is provided below.

- (1) Between December 1976 and March 1977 \$186,557.89 was embezzled from the Medical University. Internal accounting control systems have since been strengthened. Although the measures taken can deter fraud by an individual, no procedure is invulnerable to fraud when collusion is involved. (p. 148)
- (2) On April 18, 1977 a person fired five pistol shots into the ceiling of the second floor of the Administration Building. No arrests have been made. Charleston City Police feel this was a random incident unrelated to the Medical University. (p. 149)
- (3) In 1975, Dr. William M. McCord, President of the Medical University was fired by the Board of Trustees, purportedly without reason. The trustees have taken the position that the President serves "at the pleasure of the Board" by law and that they were free to make administrative changes without stating a reason. The Council examined the relevant statute and concurs with this interpretation. (p. 149)
- (4) A Board member of MUSC allegedly attempted to have a relative selected as the real estate broker to handle a University purchase. Following a State Law Enforcement Division investigation no charges were brought. The appropriate real estate broker, who is not related to the board member, completed the transaction and received the commission. (p. 150)

- (5) It was alleged that the Medical University's travel expenditures were excessively high and occurred close to the end of the fiscal year indicating an attempt to spend the appropriation so as not to lapse funds. The Council examined travel expenditures and compared them to costs at the University of South Carolina. Based on these analyses the Council concluded that the Medical University does have high year-end travel expenditures. (p. 150)
- (6) The ability of the Medical University's inventory system to detect and prevent unauthorized removal of property was questioned. The Council examined the inventory control system and determined that property could be removed without discovery. (p. 152)
- (7) It was alleged that the Medical University was transferring grant money to inappropriate accounts for uses not included in the original purposes of the grants. The Council reviewed a sample of fifty-five Federal and Foundation grants and determined that some questionable practices had occurred and that these practices should be stopped. (p. 152)
- (8) It was alleged that the Medical University overspent State appropriated research funds. The Council found some minor over-expenditures. However, the Medical University is a "lump sum agency" and is allowed total freedom in the allocation of funds. Under current law, it may offset over-expenditures in one area with under-expenditures in another. Although no excessive over-expenditures or under-expenditures were noted, it is the Council's opinion that this practice does not provide adequate control and accountability. (p. 154)

- (9) The Council examined allegations that certain persons received free medical care and other preferential treatment at the Medical University Hospital. No evidence of free medical care was found. Six private rooms were found to be more luxurious than the others, yet were charged at the same rate. If they are available, these six rooms are assigned to Medical University faculty, their families and special patients who request them. (p. 156)
- (10) It was alleged that various Medical University employees had received illegal pay raises. The Council's examination showed no such pay raises. The only deficiency was in documentation of one salary split between the Medical University and another hospital. (p. 157)

CHAPTER I
MANAGEMENT

Problems Related to Construction Projects

The Council reviewed 18 capital improvement projects undertaken at MUSC since 1970. As of July 1978, the total estimated cost for these projects was \$43.5 million. Four of the projects are completed. The remaining fourteen are in various stages of construction.

The overall management of the University's Capital Improvement Bond Funding Program and one construction project, the Quadrangle Building Renovation, were investigated in depth. MUSC's construction program was examined for compliance with State and Federal laws and regulations and adherence to accepted management standards.

Record-keeping practices for the Capital Improvement Program were found to be inadequate. Files were not orderly and in some cases documentation to justify pay increases for architects was unclear. The Council found capital improvement projects to have been managed in violation of State laws and regulations. A \$224,000 Quadrangle Building Renovation never received proper approval and contractor was not subject to the competitive practices required by law. In addition, MUSC failed to require adequate performance standards of an architect resulting in an excess cost of up to \$136,007.

Inadequate Record-Keeping Practices

MUSC's central record-keeping system for its construction program was found to be inadequate. Capital improvement project records are scattered among four different offices at the University; the Vice President for Administration and Finance, the Physical Plant, the Business Operations Office and the Accounting Office. No one office serves as the central record-keeping source for construction projects. Files in each location were found to be incomplete, with no semblance of order or uniformity. Retention of original documents and other paperwork was disorderly.

Accounting of money to fund construction is hampered by these records. For example, projects in the open or active status in the record-keeping systems of MUSC and the State Auditor show MUSC's total approved capital improvement projects to exceed the legislated funding limit by \$5.5 million as of July 1, 1978.

In addition, LAC found two federally aided projects for which records did not clearly show the reasons for increasing architects' fees. In these two projects the architect's payment was based on "compensation based on a percentage of construction costs." This payment method allows the architect's fees to increase with the rise in construction costs. In instances such as these, increases in fees should be tied directly to increased work required by MUSC and documented as such.

Proper management is achieved through the maintenance of accurate, complete and orderly record-keeping. Such practices promote efficiency and allow accountability.

Unapproved Renovation Project

MUSC spent \$224,193 for renovations to the Quadrangle Building in 1971 and 1972 without approval from either the Budget and Control Board or the Commission on Higher Education.

The Budget and Control Board's Manual for Planning and Execution of State Permanent Improvements states that the Board:

...is directed by law to assume general supervision over all expenditures for Permanent Improvements by all State agencies...

This procedure is generally applicable to any expenditure for the construction of a new building, addition to or alteration of, or major renovation of an existing building or to the demolition of an existing building. It is not intended to cover normal maintenance work, such as painting, minor repairs, etc., ordinarily done by the Agency's regularly employed maintenance force.

It is difficult to define, precisely, just when a particular project should be considered one of normal maintenance and when it is of sufficient consequence to fall under the Budget and Control Board's supervision. In doubtful instances, the Board should be consulted for a determination...

It is recommended that representatives of the Owner and the Board have one or more informal conferences in the very early stages of the development of a particular project or building program, before the submission of a formal application to the Board.

The immediate purpose of this contact is to determine whether or not the Board is likely to have any substantial objection to, or criticism of, the basic proposal, either as to the propriety of the project itself, or the plan proposed for its financing.
(Emphasis Added)

In addition, a policy issued by the Board on April 21, 1971 and reaffirmed on December 17, 1974 directed all State-supported colleges and universities to submit all proposals for capital improvements to the Commission on Higher Education for comment before consideration by the Board.

Questionable Funding for Renovation

In FY 71-72 MUSC renovated the Quadrangle Building without the required State approval for the use of funds. These renovations were financed by revenue transferred from the University's Diagnostic Laboratories account.

In 1972 a new account to receive revenue from the Diagnostic Laboratories was established as one of the Medical University Hospital accounts. At this time \$449,912.26 was left in the former Diagnostic Laboratories account to cover the Laboratories' outstanding expenses for that year. In February 1973, \$224,193 was transferred from this account to pay for the renovations to the Quadrangle Building.

MUSC had no record of written approval from the Budget and Control Board to renovate the Quadrangle Building until 1974. At this time MUSC established another account for the newly approved renovation work while maintaining the separate account for the unapproved renovations. The FY 71-72 and the FY 72-73 Appropriation Acts, Sections 79 and 82 respectively state:

...the Medical University of South Carolina (including the Medical University Hospital),...shall remit all revenues and income, collected at the respective institutions, to the State Treasurer according to the terms of Section 1 of this Act, but all such revenues or income so collected, except fees received as regular term tuition, matriculation, and registration, shall be carried in a special continuing account by the State Treasurer, to the credit of the respective institutions, and may be requisitioned by said institutions, in the manner prescribed in Section 76 of this Act [Section 79 of the Act for FY 72-73], and expended to fulfill the purpose for which such fees or income were levied, but no part of such income shall be used for permanent improvements without the express written approval of the State Budget and Control Board... [Emphasis Added]

The University has made no true cost accounting of the total cost of the Quadrangle Renovation project. Since 1974 the cost of the

renovations has risen to \$1,850,000, an increase of 146% over the original estimate of \$750,000. These estimates do not include the \$224,193 spent on the unapproved renovation work done in 1971-1972.

Meanwhile, an examination of the funds remaining in the old Diagnostic Laboratories account for FY 77-78 reveal that the money has been used for a number of purposes other than paying off the Laboratories' outstanding commitments. This account has been used to fund such items as a retirement gift, a reimbursement for pictures, the University's bonding attorney and a \$25,000 final payment on a negotiated settlement between the U. S. Department of Health, Education and Welfare and MUSC. At the end of FY 77-78 this account had a balance of \$60,908 and was not included in the carryforward funds MUSC reported to the State Legislature. This account allows MUSC officials to use funds for any purpose.

Violation of Competitive Procurement Law

The Council found that MUSC did not comply with State law in obtaining the contractor for the Quadrangle Building renovations made in 1971-1972. MUSC advertised the project in a weekly trade magazine one week prior to the opening of bids. The 1962 S. C. Code of Laws Section 1-466 requires bids from contractors as follows:

Competitive bidding required on certain construction contracts; award of contracts. No public building, or addition thereto, constructed from State funds, costing more than ten thousand dollars shall be constructed in the State unless competitive bids for the contract therefor shall have been advertised in a newspaper of general circulation in the State, at least three times over a period of thirty days.
(Emphasis Added)

Failure to Require Proper Performance of Architects

The University is not attempting to recover up to \$136,007 created through an architect's error on the air filtration system of the Quadrangle Renovation project. The architect's plan was inadequate for the proper installation of the equipment needed.

This problem was noted by the mechanical contractor's foremen and brought to the attention of MUSC officials. Subsequently, the architect has incorporated the cost of this error into changes necessitated by revised Federal Regulations.

The only criteria contained in MUSC's contracts governing the performance of its architects is the "Standard Form of Agreement between Owner and Architect," which is written by the American Institute of Architects. Sections 1.1.12 and 1.1.14 state:

The Architect, as the representative of the Owner during the Construction Phase, shall advise and consult with the Owner and all of the Owner's instructions to the Contractor shall be issued through the Architect...On the basis of his on-site observations as an architect, he shall endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor. [Emphasis Added]

Architects normally carry Errors and Omissions Insurance as a matter of company policy or as required by the person employing the architect. The Federal General Services Administration (GSA) requires architects to carry a special insurance policy for design and omission errors. In the contract GSA signs the architect is held liable for errors. For example, if a change order is the result of a design deficiency, GSA charges this error to the architect.

MUSC's intent not to attempt recovery of the costs was expressed in a memorandum dated May 26, 1978. MUSC stated that it would fund

the change order for this mistake through State Capital Improvement Bonds or through its own bonding capacity. To cover the cost of this error the University has obtained approval to revise the project budget upward by \$143,514.

Deviation from Plans Creates Inefficiency

Two instances were noted in which deviation from construction plans has and will result in excessive expense. The Council examined MUSC's decision to divert the use of the new Business Services Building (\$3,388,700) from its original purpose and the decision to purchase 229 parking meters (\$23,856.59) for the University's parking garage.

The Business Services Building was completed in December 1977 at a cost of \$3,388,700, an increase of \$1,488,700 (or 78%) over its original estimate of \$1,900,000. A year after its completion MUSC is diverting the use of the building as the University's central administration complex by moving all of the administrative offices out of the building. In its application to the Budget and Control Board, MUSC justified the need for the building by stating:

This building will house [the] Computer Center, Accounting, Business Operations, Controller, Vice President and Treasurer, Security, Personnel and Bursar, bringing them into one central location. These business activities are now scattered throughout several buildings, trailers, houses, and this building will provide a more professional and business-like operation bringing all these functions together.

Several of the offices listed in the justification statement are tied to the Computer Center which is housed on the second and third floors of the building. Since the Computer Center cannot be moved inexpensively, costly terminal links to connect the scattered offices must be installed. The building must also be renovated to house the College of Medicine, although cost estimates for these changes have not been made. This action may indicate that planning for this project was inadequate. Whatever the cause, the decision will disperse a recently centralized and more efficient administrative operation.

In October 1976 MUSC purchased 221 parking meters for its parking garage at a cost of \$23,109.55 and eight meters in November 1977 for \$747.04 for a total of 229 meters at \$23,856.59. The meters were first installed in May 1977 and used until June 1978. At that time the University reinstituted a gate attendant system for paying parking fees. A gate system was included in the original parking garage project when it was completed in 1973. The meters were left idle in the garage until December 1978 when they were removed and placed in storage. The University found that it was more profitable to use a gate attendant system to collect fees.

MUSC's Vice President for Administration and Finance said that the parking meters were an "experiment" undertaken by the University's Parking Committee. Now that the experiment has ended, MUSC must either dispose of the meters at a loss or relocate them at an additional removal and installation cost.

RECOMMENDATIONS

MUSC SHOULD:

- (1) DESIGNATE ONE OFFICE TO MAINTAIN THE OFFICIAL RECORDS FOR CAPITAL IMPROVEMENTS. THESE RECORDS SHOULD BE COMPLETE, ACCURATE AND ORDERLY.
- (2) ADHERE TO STATE LAWS AND REGULATIONS REGARDING PRIOR APPROVAL OF CAPITAL IMPROVEMENTS PROJECTS, FUNDING SOURCES, AND COMPETITIVE BIDDING.
- (3) ENSURE THAT ITS CONSTRUCTION CONTRACTS AND AGREEMENTS PROTECT THE UNIVERSITY AND THE STATE FROM SUBSTANDARD PERFORMANCE BY ARCHITECTS.
- (4) JUSTIFY ANY DEVIATIONS FROM ITS CAPITAL IMPROVEMENT PLANS TO THE STATE COMMISSION ON HIGHER EDUCATION.

Mismanagement of the Pharmaceutical Services Division

The Division of Pharmaceutical Services has complete responsibility for ordering, storing, safeguarding, and dispensing all drugs for MUSC's clinical and departmental use. During FY 77-78 the Division of Pharmaceutical Services purchased drugs worth \$1.5 million.

The Council selected a sample of ten controlled substances stocked by MUSC to analyze internal accounting controls. Controlled substances (narcotics) are differentiated from other prescription drugs by the Federal Government as being necessary for the strictest possible accountability. The narcotics selected included those drugs considered by drug enforcement officials to be highly attractive for abuse. The tests applied by the Council focused on key points of control in the existing system including receiving, storing, dispensing, and accountability. For nine of the ten narcotics examined, record-keeping discrepancies, errors, and omissions were noted, indicating that controls were generally inadequate. These problems, taken together with the loose control of prescription pads, leave the Pharmaceutical Services Division open to possible misuse, abuse or devious practices which are illegal. Specifically, the Council's investigation disclosed that the Division is in violation of State and Federal laws and regulations regarding the control and accountability of narcotics, and that purchasing and inventory practices are inefficient and inadequate. Overall, MUSC's Pharmaceutical Services Division fails to meet legal requirements and minimum management standards.

Inadequate Control Over Narcotics

Covering a three-year period, the Council's examination revealed numerous narcotic inventory discrepancies. Eight of these narcotics are

on the Drug Enforcement Administration (DEA) Schedule II for which standards of control and accountability are highest among all licit drugs. The official records for the disposition of the narcotic painkiller Dilaudid (Hydromorphone 2 mg.), one of the Schedule II drugs, contained several errors, and each record of a periodic spot-check by pharmacy personnel showed an inventory discrepancy. Between 200 and 250 tablets were found to be missing. Similar in-depth reviews of the depressant Placidyl (Ethchlorvynol 500 mg. capsules) and the stimulant Dexedrine (Dextro-amphetamine Sulfate 5 mg. tablets), both Schedule II drugs, resulted in the discovery of additional computational errors and negative recorded balances, despite the presence of the narcotics on the shelf. According to Division of Pharmaceutical Services' staff a "negative balance" indicates that drugs have been issued which were not previously recorded on the inventory log. The total quantity of drugs on hand but not on inventory logs is therefore unknown.

Table 5 is a list of instances where inventory records show control drugs to be missing. Table 6 is a list of examples where drugs on hand were not recorded on the inventory log until issued. In both tables the date of occurrence for each discrepancy is noted.

TABLE 5
Schedule of Missing Drugs

<u>Date of Discrepancy</u>	<u>Name of Drug (Strength)</u>	<u>Amount On Hand Per Record</u>	<u>Amount On Hand Per Actual Count</u>	<u>Drugs Missing</u>
5-12-78	Cocaine HCL (Flakes)	14.57 gr.	3.7 gr.	10.87 gr.
4-30-75	Quaalude (300 mg tabs)	1,191 tabs	1,048 tabs	143 tabs
4-16-75	Morphine (10 mg tabs)	532 tabs	526 tabs	6 tabs
4-16-75	Ritalin (10 mg tabs)	4,513 tabs	4,431 tabs	82 tabs
11-10-78	Ritalin (10 mg tabs)	2,007 tabs	1,986 tabs	21 tabs
9-01-78	Dilaudid (2 mg tabs)	595 tabs	450 tabs	145 tabs
6-24-76	Numorphan (1 mg/ml amps)	225 amps	200 amps	25 amps
4-15-75	Mebaral (200 mg tabs)	159 tabs	148 tabs	11 tabs

TABLE 6
Schedule of Unrecorded Drugs on Hand
or "Negative Balances"

<u>Date of Discrepancy</u>	<u>Name of Drug (Strength)</u>	<u>Amount On Hand Per Record</u>	<u>Amount On Hand Per Actual Count</u>	<u>Drugs Unaccounted For</u>
7-27-76	Quaalude (300 mg tabs)	982 tabs	1,061 tabs	79 tabs
7-27-76	Quaalude (150 mg tabs)	333 tabs	337 tabs	4 tabs
3-3-77	Dexedrine (5 mg tabs)	26 tabs	100 tabs	74 tabs
4-25-75	Placidyl (500 mg caps)	325 caps	351 caps	26 caps
4-15-78	Dilaudid (2 mg tabs)	536 tabs	543 tabs	7 tabs

Numerous Federal and State rules and regulations exist for handling controlled substance inventories. Each stresses the importance of narcotics control through explicit record-keeping. Biennial physical inventory counts are required of all dispensers of controlled substances pursuant to S.C. Code R61-4-307. The Code R61-4-305 requires that "each inventory shall contain a complete and accurate record of all controlled substances on hand." [Emphasis Added]

The loss of control over narcotic drugs has several potentially severe effects. Discrepancies in the amount or disposition of controlled substances places the responsible party in a precarious legal position, even though ultimate accountability for the substance reverts to the Federal Registrant (Pharmacy Director). Penalties for drug violations range from fines and imprisonment of personnel to loss of professional licensure. Furthermore, there is the increased possibility of drug diversion and abuse when control is lost. Not only does reliance on erroneous records destroy inventory confidence and distort cost analysis but also a potential hazard is created for hospital patients in not having a drug on hand in an emergency situation because of inaccurate records.

Deficient Intra-departmental Accountability for Narcotics

When a controlled drug reaches a department, its receipt must be documented by a signature indicating the transfer of responsibility. Analysis of all 168 intra-departmental narcotic drug requests filled between January and September 1978 revealed 10 not signed as having ever been received in the department.

These requests (see Table 7) include orders for drugs such as Cocaine, Valium and Pentobarbital. Without full documentation of all

narcotics transactions, including descriptions and complete signatures, individual responsibility for the disposition of the substance becomes unclear and the mechanism of internal control ineffective.

TABLE 7
CONTROL DRUGS ISSUED BUT NOT SIGNED FOR BY DEPARTMENTS

<u>Number Ordered</u>	<u>Size of Unit</u>	<u>Description</u>
5	Bottle	Nembutal (50 ml)
2	Bottle	Cocaine (10% solution HCL)
1	Vial	Surital Powder (1 gram)
2	Box	Sublimaze (2 ml)
20	Tubex	Valium (10 mg)
10	Ampules	Nisentil (1 ml)
2	Bottle	Valium (5 mg, 500 each)
2	Box	Fentanyl (2 cc ampules)
11	Bottle	Surital (1 gram)
25	Vial	Sodium Pentobarbital (2 ml)

The Division of Pharmaceutical Services operates under the Controlled Drug Distribution Policy and Procedures Manual (May 1975). This manual outlines the handling requirements of narcotics for nursing and other personnel. The distribution policy states that "the nurse [or other responsible party] accepting the medication will sign her name in the section 'received by' on the request form." S.C. Code R61-4-140 requires that "all applicants and registrants shall provide effective controls and procedures to guard against theft and diversion of controlled substances." The Code R61-4-905 indicates "the administrative head of the hospital as a registrant under the Controlled Substances Act is responsible for the proper safeguarding and handling of controlled substances within the hospital. Responsibility for storage, accountability,

and proper dispensing of controlled substances from the pharmacy may be, and is usually, delegated to the pharmacist."

Inefficient Purchasing Practices

Inefficiency in the processing of pharmacy vendor invoices cost MUSC \$11,943.84 in FY 77-78. Cash discount data kept by a Pharmaceutical Services clerk attributes over \$7,000 of this loss to the Accounts Payable Department for their failure to expedite the necessary paperwork to meet the discount period. The apparent lack of systematic coordination of the procurement functions (including ordering, receiving, and storing controlled substances) is causing the Division of Pharmaceutical Services to bear the expense of excess inventory as well as the cost of returns, disposals, and copious record-keeping. An effective procurement system would assure that the lowest cost is attained in all purchases including taking advantage of any possible discounts.

Lack of Inventory Management

No formal inventory management policy exists for controlled substances at MUSC. In 1978, over \$10,000 of unneeded or expired narcotics were surrendered to the Drug Enforcement Administration.

Record-keeping and distribution of narcotics is handled by a pharmacy technician under the supervision of the Director of Pharmaceutical Services. Presently, the only method used to initiate new orders of narcotics is through visual stock inspection by the technician. As bulk orders are received, excess stock is stored until it is ready to be dispensed. Prior to distribution, a unique control number is assigned to each substance. No system exists to establish a usage priority on

older medications and periodic spot-checks of narcotics on hand have not sufficiently maintained the integrity of the manual records. The Department of Pharmaceutical Services has a formulary, a book specifying the normal stock to be kept on hand. However, the formulary creates over-stocking as much of the drug waste occurred because over one-third of all controlled substances stocked by MUSC had not been prescribed from January through September 1978. Efficient inventory management requires the monitoring of usage and demand in an effort to minimize costs.

Unauthorized Possession of Prescription Blanks

The Council observed the unauthorized possession of blank drug prescription pads being used as notepaper by various departments within University Hospital. For example, in the Division of General Stores, several blank pads were on a desk top and were being used to take messages, draw maps, figure computations, and doodle.

This practice is in violation of S.C. Code Section 44-53-395 which states, in part:

It shall be unlawful...

for any person other than a practitioner registered with the Department under this article to possess a blank prescription not completed and signed by the practitioner whose name appears printed thereon...

Any person who knowingly and intentionally violates this section a first time shall be deemed guilty of a misdemeanor and upon conviction shall be punished by a term of imprisonment for not more than two years or by a fine of not more than two thousand dollars, or both. Any person who knowingly and intentionally violates this section a second or subsequent time shall be deemed guilty of a felony and upon conviction shall be punished by a term of imprisonment for not more than five years."

The name printed on the prescription pads is "MEDICAL UNIVERSITY HOSPITAL, CHARLESTON, S.C." which indicates that only authorized MUSC practitioners may possess the pads.

The disregard for security of prescription pads could result in fraudulent prescriptions being filled through MUSC's hospital pharmacy.

Violation of Disposal Regulation

During the course of the exit conference with MUSC officials, a document was submitted to the Council claiming to represent a narcotics disposal inventory conducted by two MUSC pharmacists on August 11, 1975. This document was not found in the normal disposal file located in Pharmaceutical Services narcotics section and the drugs claimed destroyed were not removed from the narcotics inventory control sheets. The disposal inventory lists thirty-eight controlled substances totalling more than 1,500 unit dosages.

This disposal is in violation of the S. C. Code R61-4-609 which outlines the procedures for disposing of controlled substances. Specifically, the regulation requires the registrant to dispose of the controlled substance in one of the following manners:

- (1) By transfer to person registered under the Act and authorized to possess the substance;
- (2) By delivery to an agent of the Division [Narcotic and Drug Control Division-DHEC] or the office of the Division;
- (3) By destruction in the presence of an agent of the Division or other authorized person; or
- (4) By such other means as the Director may determine to assure that the substance does not become available to unauthorized persons.

The Federal Drug Enforcement Administration requires registrants to list their disposals on Form ND-41, copies of which are kept on file at MUSC. There was no Form ND-41 for the disposal in question, rather, the individual drug quantities were typed on a plain white sheet and signed by the two pharmacists.

Both State and Federal Regulations are to assure control in the disposal of narcotics by having an independent authority witness and approve such disposals. Without this independent review, it becomes impossible to verify whether drugs are destroyed.

RECOMMENDATIONS

THE SOUTH CAROLINA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL CONTROL SHOULD REVIEW
THE DRUG CONTROL PRACTICES AT MUSC AND
TAKE ANY NECESSARY ACTION.

FORMAL WRITTEN INVENTORY MANAGEMENT
POLICIES WITH REGARD TO CONTROLLED SUB-
STANCES SHOULD BE DEVELOPED IMMEDIATELY.
THESE SHOULD OUTLINE NARCOTIC DISTRIBUTION
OBJECTIVES TO PROMOTE ECONOMY AND
EFFICIENCY.

THE DIVISION OF PHARMACEUTICAL SERVICES
SHOULD UPDATE ITS FORMULARY JUSTIFYING OR
ELIMINATING VARIOUS NARCOTICS ACCORDING

TO USAGE INFORMATION. A SURVEY OF PHYSICIAN PRESCRIBED DRUGS MAY BE NECESSARY TO PROPERLY EVALUATE THE NARCOTICS STOCK.

MUSC SHOULD ANALYZE PROCUREMENT PROCEDURES AND CONSIDER THE DEVELOPMENT OF AN "ECONOMIC ORDER QUANTITY" (EOQ) MODEL FOR CONTROLLED SUBSTANCES. THIS SYSTEM WOULD ENSURE ADVANTAGEOUS PURCHASING AS WELL AS OPTIMAL STOCK LEVELS FOR NARCOTICS ACCORDING TO USAGE FREQUENCY.

THE DIVISION OF PHARMACEUTICAL SERVICES SHOULD ENSURE ADEQUATE SIGNATURE DOCUMENTATION ON INTRA-DEPARTMENTAL NARCOTIC REQUESTS. EMPLOYEES SHOULD BE MADE AWARE OF THE IMPORTANCE OF THE POLICY OUTLINED IN THE CONTROLLED SUBSTANCE MANUAL. EMPLOYEES' WORK SHOULD BE MORE CLOSELY SCRUTINIZED BY PHARMACY MANAGEMENT AND CHANGES SHOULD BE MADE IN THE THREE-YEAR OLD POLICY MANUAL TO UPDATE AND CLARIFY REGULATIONS THEREIN.

THE ACCOUNTING DEPARTMENT SHOULD NEITHER ACCEPT INCOMPLETE DRUG REQUEST FORMS NOR

PROCESS THEM UNTIL THEY ARE SIGNED AND
FULLY DOCUMENTED.

A PROGRAM OF DEPARTMENTAL ACCOUNTABILITY
SHOULD BE DEVELOPED BY THE REGISTRANT TO
ENSURE ADEQUATE DISPOSITION CONTROLS AND
ENABLE TRACING OF INDIVIDUAL CONTROLLED
SUBSTANCES WITHIN THE DEPARTMENTS OF
MUSC.

Accounts for Entertainment Expenses Misused

MUSC's "entertainment" accounts have been misused and improperly controlled. The University's regulations provide for "entertainment" expenses for recruitment and special guests. Entertainment expenses are defined "to include [the] cost of meals, etc. for prospective faculty, residents, interns, etc... [and] costs of meals for guests of the Medical University." The regulation further states... "No expenditures [are] to be made on State accounts."

LAC examined \$44,708 in twenty-four accounts, or 59% of the \$75,992 encumbered for "entertainment" during FY 77-78. In violation of regulations, eight accounts contain State appropriated funds in the amount of \$488, while sixteen of the accounts are funded from other sources with no Federal funds included. Of the entertainment expenses examined only \$6,019 or 13% of the money was documented as being properly utilized. The remaining \$38,689 was spent in a manner inconsistent with the purpose of "entertainment" accounts or inadequately documented as to use or purpose.

The largest percentage of misapplied funds was for parties. Forty-seven percent of the money examined was spent for group functions such as a \$4,521 retirement reception for a radiology professor, an \$804 party for graduate students and faculty sponsored by the Dean of Medicine, a \$297 radiology departmental party, \$422 for "entertainment" approved in the Pharmacology Department, a \$464 dinner for surgical and clinical faculty, and a "social adjustment hour" in the Biometry Department costing \$125.

Section 129 of the 1977-78 Appropriation Act says "That salary appropriations for employees fixed in this Act shall be in full for all

services rendered, and no supplements from other sources shall be permitted or approved by the State Budget and Control Board." This section has been interpreted by the Budget and Control Board and the Attorney General's Office to prohibit a State agency, board, commission or committee from buying a gift, flowers, giving a party, or any other similar item for any State employee using State, Federal or other monies on the State's fiscal books.

Twelve percent (\$5,407) of the money examined was spent for business or training meetings but misclassified as "entertainment." A \$484 hypertension workshop luncheon and a \$144 luncheon with technologists were among the activities documented in this category. Another example of misclassification concerns surgical residents' and faculty breakfast charges at the MUSC cafeteria. Two percent (\$875) of cafeteria charges were incorrectly charged to "entertainment." The remaining 26% (\$11,826) of "entertainment" expenses examined was insufficiently documented. The only supporting evidence for the expenses varied from a \$1,132 "blanket" order to the "Kiawah Island Inn" to a "reception" costing \$286.

Excessive costs for "entertainment" were also noted. Meals for prospective professors or chairmen of departments ran as high as \$20.83 per person for as many as eight persons attending the function.

With only 13% of the examined "entertainment" money being properly spent and documented, there is an obvious lack of adherence to MUSC regulations by departmental and administrative management personnel. Laxness concerning "entertainment" expenses apparently stems from a feeling that doctors and other professionals have "earned" or generated the money used for such purposes, and therefore they should have discretion in its use. Although 99% or more of the money examined was

generated by the work of these professionals, they are State employees. The money they generated using MUSC property on State time is institutional revenue subject to the laws and policies governing MUSC operations.

RECOMMENDATIONS

THE TITLE OF EXPENSE CATEGORY "ENTERTAINMENT" SHOULD BE CHANGED TO "RECRUITMENT." THIS EXPENSE CATEGORY SHOULD BE DEFINED AND COST GUIDELINES SHOULD BE ESTABLISHED. MUSC MANAGEMENT SHOULD INCREASE ITS OVERSIGHT IN THE USE OF STATE GOVERNMENT INSTITUTIONAL REVENUES FOR RECRUITMENT (ENTERTAINMENT), AND SHOULD PROHIBIT SUCH PUBLIC MONEY FROM BEING SPENT ON ALCOHOLIC BEVERAGES.

Problems Regarding Aircraft

An examination of MUSC's procurement and handling of its aircraft revealed numerous areas of mismanagement and impropriety. In March 1974 MUSC entered a lease-purchase agreement for an airplane which required quarterly payments of \$7,474.90 over a four-year period totaling \$119,598.40. These payments were made with Federal funds from the Area Health Education Center (AHEC) program. The Council found violations of Federal Regulations regarding competitive bidding and property ownership. Also noted were the failure to comply with State law requiring a preference of purchases from businesses in South Carolina and inadequate monitoring of the operating cost of the aircraft. In addition, erroneous information was supplied to the Governor of South Carolina.

Improper Bid Solicitation

MUSC violated Federal procurement regulations regarding the lease-purchase agreement for an airplane in March 1974. Federal Regulations concerning procurement were promulgated by the Office of Management and Budget (OMB) in Circular No. A-102. The regulation states:

Formal advertising, with adequate purchase description, sealed bids, and public openings shall be the required method of procurement...procurements of \$2,500 or less need not be so advertised unless otherwise required by State or local law or regulations.

Correspondence written by the AHEC Deputy Project Director for MUSC states: "Bids were not advertised, however, it was well known in the industry that we were looking for such an aircraft..." The Council

could find no written specifications describing the type, size, equipment and other features desired for the MUSC aircraft.

Failure to Procure at the Lowest Cost

MUSC did not procure the least expensive contractual airplane agreement. The contract was awarded to a Georgia firm in the amount of \$119,598.40 rather than to the South Carolina firm with a lower bid of \$108,554.88. Both of these amounts included the cost of leasing. As a result \$11,043.52 of unnecessary cost was incurred.

The purpose of Federal procurement standards is to ensure that supplies, equipment, construction, and other services are obtained in an effective and efficient manner. This includes the awarding of contracts to the lowest bid which meets the required minimum standard. When the low bidder does not receive the contract, justification is required. No written justification could be found in this instance.

Improper Equipment Procurement

Nine days after signing the lease for an aircraft, MUSC purchased \$11,273 of additional aircraft equipment. Including installation and State tax the total additional cost was \$14,024. The Council could find no evidence that bids were solicited for the equipment.

To maximize the use of taxpayers' money any government organization should diligently pursue and obtain the best possible price in major equipment purchases. This concept is promulgated in Federal Regulation OMB Circular No A-102 which states:

Formal advertising, with adequate purchase description, sealed bids, and public openings shall be the required method of procurement...

Unfair Advantage Given to Bidder

Information collected by LAC indicates that MUSC's former AHEC Deputy Project Director gave an unfair advantage to the Georgia firm. The Deputy Project Director flew to Washington, D. C. at the expense of the firm on the airplane being offered. In a letter dated February 19, 1974 the Deputy Project Director made a commitment to this firm prior to receiving bids from other firms:

As is consistent with our Federal [contract], we are presently awaiting the receipt of two additional bids on comparable equipment.

I am not authorized to commit the University to any contract at this point. However, I do believe that the Baron 58 Registry #N3179W fulfills our requirements for transportation and safety as it is presently equipped. I believe that at the time the final leasing arrangements are made my recommendation will be the lease of that particular plane. The date for finalizing this should not be too far in the future. We will receive the letter of authorization from HEW on February 21st.

[Name deleted] and I thoroughly enjoyed our trip to Washington with you and [name deleted] the other day. [Emphasis added]

This type of conduct is in violation of Federal Regulation OMB Circular No. A-102, which states:

The grantee [MUSC] shall maintain a code or standards of conduct which shall govern the performance of its officers, employees, or agents in contracting with and expending Federal grant funds. Grantee's officers, employees or agents, shall neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or potential contractors. To the extent permissible by State or local law, rules or regulations, such standards shall provide for penalties, sanctions, or other disciplinary actions to be applied for violations of such standards by either the grantee officers, employees, or agents, or by contractors or their agents...All procurement transactions regardless of whether negotiated or advertised and without regard to dollar value shall be conducted in a manner so as to provide maximum open and free competition. [Emphasis Added]

Failure to Give Preference to South Carolina Businesses

The Council found that MUSC made no attempt to solicit the one bid it received from a S. C. aircraft firm. The firm learned of MUSC's desire to purchase an airplane through hearsay. When the firm made repeated attempts to sell an airplane to MUSC, their offers were met with little interest on the part of University officials. By awarding the airplane lease-purchase agreement to an out-of-state firm MUSC did not comply with the following State Laws:

In the purchase of materials, furnishings and supplies for State institutions preference shall be given to persons, including the Penitentiary as to commodities produced by the Penitentiary, residing in and having a place of business in this State; provided, that the resident person shall meet non-resident or foreign bids both as to price and as to quality of goods sold. Such purchases shall be made from such persons as are regularly engaged in the sale of the goods or supplies sought to be purchased. [S. C. Code 1-1-450]

The term "State institutions" as used in Section 1-1-450 shall be construed to mean all educational institutions and all penal and charitable institutions which are supported either wholly or in part by the State. [S. C. Code 1-1-460]

Any goods purchased in violation of the provisions of 1-1-450 shall not be a debt against the State. [S. C. Code 1-1-470]

As a result the State did not receive the economic benefit of MUSC's \$119,599.40 expenditure. Although a single control account was established by MUSC, expenses for the airplane were paid from other accounts. During FY 77-78 the Council noted \$1,428.04 of expenses from one State account for airplane parts, avionics repairs and aviation fuel. From another account, the AHEC Federal Grant account, \$2,574.30 was spent for other airplane maintenance and repair costs. A determination of the full amount of airplane expenses charged to accounts other

than the designated airplane account would require a time-consuming and in-depth analysis.

Excessive costs were allowed for aircraft maintenance. The airplane was frequently taken to Atlanta, Georgia and Greer, South Carolina for routine servicing when less expensive qualified firms are nearby. The Greer firm charges \$20/hour for maintenance and \$25/hour for avionics work, while the Atlanta firm charges \$22/hour for maintenance and \$24/hour for avionics work. Greer and Atlanta are over 200 miles from Charleston and often required over-night expense for the pilot. Two qualified firms in South Carolina were contacted and found to have lower prices. A Charleston firm was found to charge only \$18/hour for maintenance and \$18-\$20/hour for avionics, while a Columbia firm was found to charge \$18/hour for maintenance and \$18-\$25/hour for avionics.

The rates charged to MUSC's departments for use of the aircraft have been somewhat lower than rates charged by private businesses. However, with inadequate cost accounting it is unclear whether or not MUSC actually operates its aircraft more efficiently than private firms. A letter dated May 23, 1974 from the MUSC Controller to the AHEC Deputy Project Director describes the airplane operation as follows:

All passengers utilizing the airplane will be charged for air miles flown... All revenue thus generated will be credited to the above-named account [the airplane control account]. This account should be self-supporting and rates should be periodically adjusted to cover the cost of operating the aircraft.
(Emphasis Added)

MUSC's accounting records for FY 77-78 show the airplane account starting the year with a balance of \$1,264.30 and ending the year with a deficit of \$11,538.30. The airplane has been transferred to another

control account for FY 78-79 leaving the deficit to be made up by some other source, while the pilot's salary is now paid with State funds.

In 1977-1978 Congress investigated the funding requests for the nationwide AHEC program. The subcommittee conducting the investigation examined MUSC's funding requests and drew the following conclusion concerning MUSC's airplane:

Regional office representatives reviewed the South Carolina proposal and suggested that continuation of the project's air transportation activities be deleted from the scope of work and that the Contractor be required to submit a complete justification for the use or lease of project aircraft. The reviewers further suggested that the justification for project aircraft should be based upon program and economic advantages as opposed to ground or commercial air travel. The Investigative Staff noted, and BHM officials confirmed, that the justification was not obtained. [Emphasis Added]

In 1977 MUSC's airplane generated \$79,948.55 in revenue, \$44,131.80 of which was AHEC funds. AHEC money supplied \$44,566.03 of the \$77,496.01 generated in 1976. As Federal AHEC funds are phased out, increased State funding will be needed to continue the program. Even with AHEC funding, the airplane operation accumulated large deficits over the past four years.

Erroneous Information Provided to Governor

MUSC provided erroneous information to the Governor of South Carolina concerning the airplane contract. In a letter to the Governor dated July 9, 1974 the President of MUSC stated, "An airplane was rented under a lease agreement with no contract to purchase." In a letter dated July 8, 1974 to MUSC's President from the AHEC Deputy Project Director for MUSC, he stated, "The Beechcraft Baron 55 which

the Area Health Education Center Project is using is leased from Commercial Credit Equipment Corporation (CCEC). It is not a lease-purchase, but an outright lease." [Emphasis Added] Based on this misleading letter the President of MUSC provided erroneous information to the Governor.

Between 1974 and 1978, confusion existed concerning what the university's options were under the airplane contract. An internal memorandum dated February 28, 1974 from a MUSC Business Manager stated, "...the leasee [sic] shall have the option to return the equipment or purchase at FMV [fair market value] or renew on a year-to-year basis." Another memorandum dated December 4, 1975 from MUSC's Director of Business Operations stated, "I discussed this matter with [name deleted] of the Commercial Credit Equipment Corporation in Atlanta, Georgia and he advised me that we do have a lease-purchase agreement. Also, that upon termination of the lease-purchase agreement the plane will be our property." [Emphasis Added]

A letter dated November 26, 1975 from MUSC's Project Coordinator to MUSC's Vice President and Treasurer stated, "A matter of some importance has come to my attention...the AHEC airplane lease. The matter concerns the ownership of the airplane once the lease is terminated. Persons have informed me that because of Federal restrictions this was not a lease-purchase agreement but that upon completion of the lease some verbal agreement has been made with Commercial Credit that the airplane would become MUSC's property." An internal communication slip dated February 15, 1978 from the Director of Business Operations to the Vice President and Treasurer stated, "The lease does not provide

for purchase as far as I can determine." This confusion continued until the option to buy the airplane was finally executed.

The Council's examination of the airplane "lease" contract revealed that the contract is not a lease agreement but a lease-purchase agreement. In paragraph eight of the contract titled "Sale and Final Settlement" MUSC is allowed, after 12 months, to give prior notice to the lessor in order to terminate the lease, and may either return the aircraft or pay the commuted (fair market) value to the lessor. In this case MUSC could sell the aircraft to itself, in actuality buying the aircraft. Therefore, the option to buy the aircraft existed after the lease had been paid for a twelve-month period. In fact, after four twelve-month lease periods expired MUSC purchased the aircraft by paying Commercial Credit Equipment Corporation \$10.00.

Questionable Ownership

Upon completion of all lease payments from Federal AHEC funds (\$119,598.40), MUSC paid an additional \$10.00 of State funds and "assumed title" to the aircraft. It is evident in this case that the Federal grantor agency may claim title to the aircraft or require MUSC to pay fair market value. Applicable Federal Regulations are set forth in Federal Management Circular (FMC) 74-7, Attachment N:

[4a(4)] Where the Federal grantor agency determines that property with an acquisition cost of \$1,000 or more and financed solely with Federal funds is unique, difficult, or costly to replace, it may reserve title to such property, subject to the following provisions: [Emphasis Added]

[4a(4)(b)] The grantor agency shall issue disposition instructions within 120 days after the completion of the need for the property under the Federal grant for which it was acquired. If the grantor agency fails to issue disposition instructions within

120 days, the grantee shall apply the standards of 4a(1), 4a(2)(b), and 4a(3)(b).

[4a(1)] The grantee shall retain the property acquired with Federal funds in the grant program as long as there is a need for the property to accomplish the purpose of the grant program whether or not the program continues to be supported by Federal funds.

[4a(2)] When the grantee no longer has need for the property in any of its Federal grant programs, the property may be used for its own official activities in accordance with the following standards:

[4a(2)(b)] ...The grantee may retain the property for its own use provided that a fair compensation is made to the original grantor agency for the latter's share of the property. The amount of compensation shall be computed by applying the percentage of Federal participation in the grant program to the current fair market value of the property. [Emphasis Added]

[4a(3)] If the grantee has no need for the property, disposition of the property shall be made as follows:

[4a(3)(b)] ...The grantee shall request disposition instructions from the grantor agency. The Federal agency shall determine whether the property can be used to meet the agency's requirement. If no requirement exists within that agency, the availability of the property shall be reported to the General Services Administration (GSA) by the Federal agency to determine whether a requirement for the property exists in other Federal agencies. [Emphasis Added]

RECOMMENDATIONS

MUSC SHOULD CLOSELY MONITOR COMPLIANCE WITH LAWS AND REGULATIONS REGARDING PROCUREMENT. ALL PURCHASES MADE INVOLVING FEDERAL FUNDS SHOULD BE SUBJECT TO REVIEW AND APPROVAL AS REQUIRED BY FEDERAL REGULATIONS AND STATE LAWS. THIS REVIEW

AND APPROVAL PROCESS SHOULD ENSURE A
THOROUGH UNDERSTANDING OF ALL CONTRACT
OBLIGATIONS AND OPTIONS FOR DECISION-MAKING
AND INFORMATION REPORTING PURPOSES.
ULTIMATELY THE REVIEW SHOULD ALLOW QUALITY
PROCUREMENT AT THE LOWEST PRICE.

Inadequate Property Inventory System

MUSC's property inventory system does not adequately account for the agency's \$29.4 million property inventory. To test the system's control LAC selected a statistically valid random sample from MUSC's master inventory list. Of the sample 78% of the items could not be positively identified by MUSC personnel. Of the first 90 items examined only 20 could be found and identified. Fifty-four items could not be located while the remaining 16 items bore no identification and therefore could not be positively identified. The Council's physical search was halted after 90 items because the inadequacies of the system made the survey excessively time consuming. Although abbreviated, the survey included 18 different departments. Fifteen of these did not maintain internal inventory lists and could not readily locate equipment and reconcile it to the master inventory list. For example, a \$55,900 amino acid analyzer could not be positively identified, while examples of equipment which could not be found varied in value from a \$8,985 sonic energy console to less expensive items such as a \$114 chair.

The Council noted that no periodic inventories or "spot checks" of property are made by the University's internal auditor or by individual departments. There is no one individual in each department who is responsible for receiving, inspecting, tagging and recording equipment for proper inventory control. The inventory and tagging process is hampered because the Property Department is often not informed of a purchase until the equipment has been delivered to the department that ordered it. In some cases the Property Department was not informed of the disposal of equipment. Also, there is no uniform location for placing property tags on equipment which should bear a tag.

S. C. Code 10-1-140 requires a property inventory as follows:

The head of each department, agency or institution of this State, which employs more than one hundred permanent employees, shall be responsible for all personal property under his supervision and each fiscal year shall make an inventory of all such property under his supervision, except expendables.

Federal property management standards are provided in Federal Management Circular (FMC) 74-7 Attachment N which states:

Property records shall be maintained accurately and provide for: a description of the property; manufacturer's serial number or other identification number; acquisition date and cost; source of the property ...location, use, and condition of the property... A physical inventory of property shall be taken and the results reconciled with property records at least once every two years to verify the existence, current utilization and continued need for the property.

Inadequate property inventory control can allow the undetected theft or misuse of government property, unnecessary duplicative purchasing of equipment, distorted budget projections for future equipment needs, and ultimately results in a waste of taxpayers' money.

These inventory control problems apparently result from a lack of emphasis by management. In 1974 the South Carolina State Auditor's Office recommended to MUSC that the "Installation and maintenance of an inventory system of property and equipment by the Medical University should provide current, adequate, as well as accurate information for use by the University in its financial reporting. Some type of positive identification should be used to clearly identify each item of equipment. This system could include the use of tags, decals, engravings or any other positive type of identification." The State Auditor also recommended that periodic inventories be conducted. In a written response to the State Auditor, MUSC stated that it concurred with the finding

and was implementing the recommendation. MUSC's failure to solve its inventory problems in four years indicates the lack of management initiative and the inability of the central accounting system to assure the protection of the State's resources.

RECOMMENDATIONS

THE BOARD OF TRUSTEES SHOULD TAKE
IMMEDIATE ACTION TO CORRECT DEFICIENCIES
IN MUSC'S PROPERTY MANAGEMENT SYSTEM.

MUSC SHOULD PLACE MORE MANAGEMENT EMPHASIS ON PROPERTY CONTROL. THE UNIVERSITY SHOULD DEVELOP A MORE COMPLETE INVENTORY DESCRIPTION LISTING EQUIPMENT INFORMATION SUCH AS MANUFACTURER'S NAME, TRADE NAME, SIZE, COLOR, MODEL NUMBER, ETC. LIKE ITEMS OF EQUIPMENT SHOULD BE TAGGED IN A STANDARD LOCATION. BULK ITEMS THAT CANNOT BE INDIVIDUALLY TAGGED SHOULD BE FULLY DESCRIBED AND LISTED BY THE TOTAL NUMBER ON HAND.

THE PROPERTY DEPARTMENT SHOULD BE NOTIFIED WHEN EQUIPMENT IS ORDERED, BY WHOM, FOR WHICH DEPARTMENT, AND THE EXPECTED DATE OF ARRIVAL.

THE PROPERTY DEPARTMENT SHOULD BE PROMPTLY INFORMED WHEN EQUIPMENT IS DISPOSED OF.

THE PROPERTY DEPARTMENT AND THE UNIVERSITY'S INTERNAL AUDITORS SHOULD CONDUCT PERIODIC UNANNOUNCED INVENTORIES AND RECONCILE ANY DIFFERENCES.

EACH DEPARTMENT SHOULD DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR INVENTORY CONTROL. A DEPARTMENTAL INVENTORY SHOULD BE CONDUCTED IMMEDIATELY IN COORDINATION WITH THE PROPERTY DEPARTMENT TO DETERMINE MUSC'S ACTUAL INVENTORY VALUE.

Failure to Report Carryforward Money

At the end of FY 77-78 MUSC carried forward at least \$2.2 million of funds from sources other than the State or Federal Government but only reported as carryforward \$33,975 of other funds in its budget request. Examples of funds carried forward into FY 78-79 but not properly reported to the Legislature include:

- (1) \$481,125 generated by physicians' private practices through the Professional Staff Office and dentists' private practice in the dental clinic. Of these funds \$195,708 was carried forward in the President's and Dean's funds for use in the College of Medicine while \$285,417 was carried forward in specific academic departments for their use.
- (2) \$144,926 in the account for dormitory revenue.
- (3) \$105,692 in a special activities fund used to make dormitory mortgage payments and buy dormitory equipment.
- (4) \$100,801 in the bookstore account.
- (5) \$60,908 in the diagnostic labs fund.
- (6) \$52,244 of vending machine income.
- (7) \$36,199 in a parking lot revenue account.
- (8) \$22,142 in one continuing education account.

State law requires that all State agencies and institutions report all funds carried forward at the end of each fiscal year in accordance with the requirements of the State Budget and Control Board. The FY 79-80 State Budget Preparation Manual explains how agencies and institutions should present carryforwards:

All departmental revenue must be included on the Revenue Statement Summary. The format requires that all balances from the previous year, all receipts during each year, and all balances carried forward be shown in the two categories of departmental revenue where such detail is appropriate. (Emphasis Added)

By not properly reporting all carryforwards MUSC not only violates State regulations, but also prohibits the Legislature from knowing of all available funds. This practice prevents the Legislature from making accurate appropriations decisions.

RECOMMENDATIONS

MUSC SHOULD ADHERE TO STATE REGULATIONS.
ALL FUNDS CARRIED FORWARD AT THE END OF
EACH FISCAL YEAR SHOULD BE REPORTED IN
THE PRESCRIBED FORMAT.

Purchasing Irregularities

A review of purchasing practices at MUSC disclosed several examples of inefficiency and deviation from required State practices.

First, MUSC was found to purchase supplies for the Physical Plant at higher prices than necessary. An examination of \$14,301 of purchases made in the fourth quarter of FY 76-77 revealed that with competitive practices 25% or \$3,527 could have been saved.

Second, an analysis of year-end spending for equipment showed that of MUSC's total FY 77-78 State expenditures for equipment, 39% (\$1.1 million) was made in June. This practice gives the appearance of an attempt to avoid the return of surplus State funds to the State General Fund as required by law.

Finally, beds for the University's Hospital were procured in violation of State purchasing regulations regarding efficiency, agency authority to purchase, and rejection of substandard goods. As a result \$5,106 was wasted, not including the cost of staff time.

Inefficient Purchasing of Physical Plant Supplies

MUSC has repeatedly purchased supplies for the Physical Plant at higher prices than necessary. MUSC's purchasing regulations state that all purchase orders in the amount of \$100 or more should be procured competitively to insure high quality goods at the most economical cost. LAC staff examined orders for different types of supplies purchased by the Physical Plant and found that one or two vendors of each particular type were consistently receiving the bulk of MUSC business. The prices of these firms usually proved to be higher than the prices

of their competitors. LAC staff interviewed numerous vendors in the Charleston area who handle electrical, plumbing, lumber and industrial supplies and the majority have rarely been contacted to offer price quotations. In one instance a vendor claimed he repeatedly requested to be allowed to bid but was usually denied the opportunity.

A sample of vouchers was examined for "favored vendors" in the fourth quarter of FY 76-77. Of the \$14,300.57 total of the purchases examined, the Council found that as much as 25% or \$3,527.00 could have been saved through competitive pricing. It is important to note that these figures represent only per unit prices. These items are frequently ordered by the thousands, therefore, the potential for savings may be greater.

MUSC's purchasing regulations state that all correspondence pertaining to prospective purchases involving price, terms, conditions, and delivery shall be carried on by the Purchasing Department, not by faculty and staff. It is the responsibility of the buyer in the Physical Plant, as a representative of the Purchasing Department, to seek price quotations, select the vendor and complete the paperwork. However, the shop foremen in the Physical Plant were found to be ordering items directly from vendors without authorization and without competitive pricing. The buyer was found to be completing the paperwork for originating an order after the improper purchase had been made. The apparent favoritism of the foremen toward several vendors suggests a possibility of conflict of interests.

Another example of inefficient purchasing in the Physical Plant involved the purchase of light bulbs on four different occasions from

two out-of-state companies for a total of \$4,937.19, approximately \$5.21 per bulb. These same light bulbs could have been purchased locally on State contracts for a total price of \$547.48, or \$.59 per bulb.

Central State Purchasing's Policies and Procedures Manual states that "any items available under term contracts must be purchased from the established contractor." MUSC violated this procedure by purchasing these light bulbs from a non-contract source. In these highly questionable purchases MUSC paid about ten times the available local price, resulting in an excess cost to the State of \$4,390.24.

Excessive Year-End Spending

The Medical University spent excessive amounts of money at the end of the fiscal year. An analysis of year-end spending for equipment showed MUSC made 39% (\$1.1 million) of its FY 77-78 State expenditures for equipment in June 1978. Moreover, this practice gives the appearance of an attempt to avoid the return of surplus State funds to the State General Fund as required by law.

In accordance with State law, funds uncommitted at the end of the fiscal year (surplus) shall be transferred to the General Fund Reserve and subsequently reappropriated according to a specific priority order. S. C. Code 11-11-120 provides that:

Funds accumulating in excess of the annual operating expenditures shall be transferred to the General Fund Reserve and such transfer shall continue to be made in succeeding Fiscal Years until the accumulated total in this reserve reaches an amount equal to five percent of the General Fund revenue of the latest completed Fiscal Year.

Year-end spending subordinates the intentions of the General Assembly and applies surplus funds in an irresponsible and seemingly

unlawful manner. Monies are not being transferred to the Reserve Fund to cover deficits as required by law. Fund depletion exaggerates actual departmental operating expenses fortifying the subsequent year's budget request.

Improper Procurement of Beds

The following paragraphs describe improper procurement practices for beds regarding (1) Inefficient Procurement, (2) Violation of \$1,500 Purchasing Limit, and (3) Noncompliance with State Rejection Regulations.

(1) Inefficient Procurement

In August 1977 the Nursing Department of MUSC issued a requisition to MUSC's Central Purchasing Department for 38 beds to be used in the psychiatric ward of the MUSC Hospital. The beds were listed at a unit price of \$285 bringing the total price to \$10,830. Bids were solicited and the contract was awarded. However, due to the unavailability of the specific type of bed requested, Purchasing changed the order to another type of bed at a cost of \$200.45 each for a total of \$7,617.10. Upon delivery these beds were found to be unusable because of failure to meet fire safety standards. The Council found differing opinions and no written documentation as to whether or not the Nursing Department approved the change in the type of bed. When the Department became aware of the substandard quality, the beds were neither rejected nor exchanged, but were placed in storage and a second order initiated. The first group of beds was later

sold by the Purchasing Department for \$2,510.82 to the College of Charleston resulting in a \$5,106.28 loss (\$7,617.10 minus \$2,510.82). The second order was placed for beds costing \$159.20 each for a total of \$6,049.60. These beds were acceptable and are in use at the hospital.

State Purchasing Policies and Procedures established by the State Budget and Control Board are "designed to accomplish the purpose of centralized purchasing activities." That purpose is efficiency in the expenditure of public funds. The procedures set forth a formal process to obtain quality goods at the lowest possible price for agencies and institutions of the State.

(2) Violation of \$1,500 Purchasing Limit

By procuring beds for \$7,617.10 and \$6,049.60 without going through Central State Purchasing, MUSC violated State regulations. Budget and Control Board Purchasing Policies and Procedures specify:

All purchases over \$1,500 must be made by Central State Purchasing with the following exceptions:

- (a) Exempted items which are specified on pages 19 and 20 of the Purchasing Policies and Procedures manual may be purchased directly by an agency as needed.

[Pages 19 and 20]...Purchases of exempted supplies, materials, and equipment listed below may be made by an agency, institution or department as needed... Detailed records of all purchases of exempted commodities should be kept by each agency and made available for review. Exempted commodities are:

- (a) Perishable articles...[Food]
- (b) Medical, technical, dental and optical supplies, instruments and prescription items. [Emphasis Added]

- (c) Books and other printed matter...
- (d) Articles purchased especially for resale.

(3) Noncompliance with State Rejection Regulations

MUSC did not adhere to State regulations regarding the rejection of substandard merchandise. When MUSC received the first order of substandard beds, an attempt was made to return them. MUSC officials stated that the supplier would neither refund nor exchange the bed order for health reasons and as company policy. This was accepted by MUSC and the substandard beds were sold at a loss to MUSC of \$5,106.28. The Council contacted the South Carolina State Health authorities and found no laws prohibiting the return of unused bedding in South Carolina or North Carolina (the supplier was located in North Carolina). In addition, Budget and Control Board Purchasing Policies and Procedures state:

Rejection -- If any item is rejected after inspection, notice should be given by the receiving agency to the vendor within a reasonable time after delivery... The vendor must remove at his expense any item rejected by the State of South Carolina. If the vendor fails either to remove such commodity or to forward shipping instructions to the agency concerned, the State may sell the commodity and remit the proceeds of sale after deducting the expense incurred.

RECOMMENDATIONS

MUSC SHOULD SEEK COMPETITIVE PRICES FROM A VARIETY OF SOURCES NOT ONLY TO ENSURE THAT VENDORS ARE ALLOWED EQUAL OPPORTUNITY TO OFFER THEIR GOODS AND SERVICES, BUT ALSO TO RECEIVE HIGH QUALITY GOODS AT THE MOST ECONOMICAL COST TO THE STATE.

MUSC SHOULD TAKE ACTION TO ENSURE THAT ONLY THE AUTHORIZED BUYER PURCHASE GOODS.

ANY TELEPHONE QUOTATION RECEIVED BY THE BUYER SHOULD BE RECORDED TO ENSURE PROPER ACCOUNTABILITY. THE WORK SHEET SHOULD INCLUDE THE BUYER'S NAME, VENDORS CONTACTED, THE VENDORS' PRICES AND NAME OF THE INDIVIDUAL QUOTING THE PRICE AND THE TERMS OF DELIVERY.

ALL YEAR-END EXPENDITURES SHOULD BE FULLY REVIEWED FOR JUSTIFICATION ENSURING FUTURE COMPLIANCE WITH THE STATE RESERVE FUND LAW.

MUSC SHOULD ADHERE TO STATE PURCHASING REGULATIONS. SPECIFIC FINANCIAL DOCUMENTATION SHOULD BE MAINTAINED TO SUPPORT

ANY CLAIM OF COST SAVINGS. MUSC'S PUR-
CHASING DEPARTMENT SHOULD STRESS
COOPERATION AND COORDINATION BETWEEN ITS
CENTRAL PURCHASING OFFICE AND THE
DEPARTMENTS IT SERVES.

State Funds Support Charleston County Indigents

During FY 77-78 the Medical University Hospital provided health care totalling \$12.3 million to indigents in South Carolina. Of this total, \$6.2 million or 50.4% was spent for indigent health care for Charleston County residents. Indigents from all the remaining counties of the State received the benefit of only \$6.1 million or 49.6% of the total cost.

An equitable system for providing indigent health care would distribute services proportionally among the residents of the taxing jurisdiction that pays for them. Since the Medical University is a State agency and receives most of its funding from State tax revenues, its services should be distributed statewide.

Medical University indigent health care services tend to center around Charleston County because the hospital is located there. In addition, Charleston County Hospital has very limited clinic facilities and refers most of the indigents who need clinic care to the Medical University Hospital. Also there is no statewide program for coordinating indigent health care services. State law does not require the Medical University to supply this service.

As a result of the location and practices of the Medical University Hospital, Charleston County receives a subsidy of \$6.2 million in health care for its local indigent population. This relieves county taxpayers of a significant tax burden without sacrificing the availability of medical attention to those financially unable to pay.

RECOMMENDATION

THE GENERAL ASSEMBLY SHOULD CONSIDER WHETHER THIS SYSTEM FOR PROVIDING INDIGENT HEALTH CARE AT MEDICAL UNIVERSITY HOSPITAL SHOULD CONTINUE. IF COUNTIES ARE TO BE RESPONSIBLE FOR PROVIDING INDIGENT HEALTH CARE, AN EQUITABLE METHOD FOR DISTRIBUTING COSTS SHOULD BE DEVELOPED (SEE CHAPTER II, P. 103.

Inadequate Student Loan Collection

Inadequate efforts have been made to collect defaulted student loans. As of July 31, 1978, fifty-eight student loans were in default in the amount of \$25,587. A loan is considered in default if no payment has been made 120 days after a payment is due.

The Council's analysis revealed that defaulted loans date as far back as 1970. Also, \$15,840 of the defaulted loan monies should be collected easily because the borrowers are graduates of MUSC and have degrees which usually assure ready employment at a good salary. A breakdown of defaulted loans by professional category reveals that M.D.'s account for 20% of these severely overdue payments. Allied Health Science graduates account for the next highest amount owing 14%, followed by graduates in Dental Medicine 12%, graduates in Nursing 11%, and graduates in Pharmacy 5%. Even though the remaining \$9,747 in default is owed by withdrawn or dismissed students, the money should be collected because student loans are legally binding contracts and with proper action can be collected.

MUSC has neither developed nor implemented adequate collection procedures. The Student Loan Collection Procedures Manual is used by the Financial Aid Business Office as a guide to sound collection practices. Although some of the recommendations in the manual have been adopted management has not implemented the procedures which would guarantee the best collection results. The manual points out that when an account is in default status the institution must make a decision regarding a course of action to pursue. The business office's stated policy is that the borrower's account be turned over to a collection agency after 120

days for a letter series if he does not respond to prior notices. In the Student Loan Collection Procedures Manual litigation is urged as a further step. The manual states:

After all other attempts at collection have failed, the debtor and endorser (if any) should be considered for legal action. If such action appears necessary, the fiscal officer should not hesitate to give approval for the necessary steps to be carried out.

The most serious impediment to sound collection procedures has been negligence in this regard. Legal action has been threatened many times but the philosophy of the business office has been that litigation would cause "a great deal of unpleasantness and possible embarrassment" to the borrower. The strongest action taken has been the use of a collection agency which has sent a series of five progressively harsher payment request letters to borrowers. Recently the Financial Aid Business Office has been empowered to employ the services of credit bureaus, yet the office is not taking full advantage of the services offered. According to private credit bureau professionals, the most effective way to collect delinquent loans is to use both the credit reporting and collection services of credit bureaus.

Collection practices are further hampered by the absence of standardized files. In examining the 59 loan files, 54 of the files were inadequate for collection purposes and only two conformed to the standards of the Financial Aid Business Office's Policies and Procedures handbook. There were 30 instances of incomplete documentation in the files, 40 instances of a time lag in collection efforts and 13 cases of threatening letters sent with no follow-up action taken.

Additionally, the overdue accounts are retained in the original subsidiary ledger by loan funding source rather than in a separate

accounting ledger for defaulted loans. The Student Loan Collection Procedures Manual states:

At some point in the collection process, each institution should prepare a list of its past due accounts. The purpose of this list is to aid the collector in keeping track of past due accounts and to make certain that those accounts are treated according to an orderly system of due diligence. This list can also be used as a management tool to judge the effectiveness of its [the institution] collectors or of the collection agencies. It [the list] should be updated whenever the status of a borrower changes.

Although there are three file drawers for delinquent accounts, the files are in disarray; there is no distinction made in the length of time an account has been past due; and only a partial listing of defaulted loan account names and addresses was available.

If the loans in default are not collected, the resulting loss in the principal alone would be \$65,200. Besides this monetary loss, inadequate collection efforts perpetuate non-payment by encouraging future borrowers to default. Moreover, students needing loans in the future may be denied educational opportunities because the defaulted funds are not available to be recycled into the various loan programs.

RECOMMENDATIONS

LEGISLATION SHOULD BE ENACTED REQUIRING
THE SUSPENSION AND/OR REVOCATION OF
LICENSES, AND PROHIBITING LICENSE RENEWAL
FOR ANY HEALTH PROFESSIONAL PROVEN TO
HAVE A STUDENT LOAN IN DEFAULT STATUS.

MUSC SHOULD IMPROVE STUDENT LOAN COLLECTION EFFORTS BY DEVELOPING AND IMPLEMENTING PROCEDURES AND PRACTICES IN THE FOLLOWING AREAS:

- (1) A COMPUTERIZED LOAN MANAGEMENT SYSTEM SHOULD BE DEVELOPED USING ALL PERTINENT LOAN INFORMATION. THE GOAL OF THIS SYSTEM SHOULD BE EFFICIENT PROCESSING FOR QUICK AND EFFECTIVE MONITORING AND COLLECTION.
- (2) IMMEDIATE ACTION SHOULD BE TAKEN WHEN A LOAN PAYMENT IS PAST DUE. IF NO RESPONSE FOLLOWS PAST DUE NOTICES, LEGAL PROCEEDINGS SHOULD BE INSTIGATED IMMEDIATELY. IF THE LOAN AMOUNT IS \$500.00 OR LESS, CLAIMS FOR RECOVERY SHOULD BE FILED IN MAGISTRATE'S COURT.
- (3) MONTHLY LISTS OF ACCOUNTS UP TO 120 DAYS PAST DUE SHOULD BE KEPT TO NOTIFY THE STAFF WHEN TO SEND PAST DUE NOTICES.
- (4) A SEPARATE DEFAULTED LOAN CONTROL LIST OR LEDGER SHOULD BE MAINTAINED AND USED.
- (5) COLLECTION AGENCIES SHOULD BE USED FOR PERSON LOCATOR AND BAD CREDIT REPORTING SERVICES.

- (6) THE CONTENTS OF STUDENT LOAN FILES SHOULD BE STANDARDIZED AND KEPT UP-TO-DATE.
 - (a) CONTACT SHEETS SHOULD BE POSTED WITH THE DATES OF ALL CORRESPONDENCE BETWEEN THE OFFICE AND THE BORROWER.
 - (b) BORROWER TRACING SHEETS SHOULD BE USED TO DOCUMENT COLLECTION EFFORTS.
 - (c) THE EXIT INTERVIEW QUESTIONNAIRE SHOULD BE EXPANDED TO INCLUDE AN UPDATE OF REFERENCES AND ADDRESSES; FATHER'S AND MOTHER'S NAME, ADDRESS AND EMPLOYER, INSURANCE COMPANIES AND POLICY NUMBERS.

Professional Staff Office Revenue Not Budgeted

MUSC receives more than \$1 million a year in revenues from the Professional Staff Office (PSO), the organization established by the University to allow faculty members to supplement their MUSC income in private practice. Funds received from the PSO are excluded from MUSC's internal budgetary process.

Faculty members at MUSC have established a plan approved by MUSC Board of Trustees which allows faculty to supplement their salaries by conducting private medical practices in the University facilities. According to a study by the South Carolina Commission on Higher Education, this concept is accepted by virtually all medical teaching institutions. It assures faculty physicians financial earnings comparable to physicians practicing in the private sector and allows them to maintain first-hand knowledge and experience in new medical technology.

MUSC charges its faculty members a graduated percentage of their earnings. Revenue from this source goes for the "enrichment of academic programs" at MUSC. A portion of the revenue goes directly into accounts maintained by the MUSC President and by the Dean of the College of Medicine. The remaining funds go into separate accounts in the different departments of the College of Medicine.

The individual departments have resisted placing these funds in the University's internal budgetary process, a process which would estimate the revenue from the various doctors in each department and then allocate these funds to different needs in the department. A fairly accurate estimate of anticipated funds is possible each year by estimating the amount earned by the faculty members. In fact, MUSC

presents a "lump" estimate of the revenue to the Budget and Control Board in its yearly budget request, yet does not show a planned use for the funds.

The MUSC President and the Dean of the College of Medicine have also chosen not to subject funds received from the Professional Staff Office to the budgetary process. These funds average \$250,000 per year. The Council noted that expenditures from these accounts covered the cost of bills such as a Christmas dinner for the Board of Trustees, a commencement dinner, a faculty and staff reception, and luncheons for graduate students.

RECOMMENDATION

MUSC SHOULD BUDGET ALL ANTICIPATED PROFESSIONAL STAFF OFFICE REVENUE.

Intra-Institutional Transfer Weaknesses

A review of MUSC's intra-institutional transfer (IIT) process revealed several accounting control weaknesses. An IIT is the means by which the cost of goods and services is exchanged or transferred between MUSC departments. About 20,000 such transactions occurred in FY 77-78 involving the conveyance of \$8.5 million. These transfers are facilitated through the use of a pre-numbered Purchase Requisition form which identifies the department's source of funds affected. The form is also to include supportive information describing and authorizing the transfer of funds. The Council found a lack of consistent classification of departmental expenses on IIT's throughout the University. Of the 750 IIT forms examined, many were incomplete in description and lacked the required signatures. In some instances the IIT forms had the same control number.

Inconsistent Classification of Expenses

Confusion and inconsistency exists in the departments' use and interpretation of more than a dozen expenditure categories. For example, the code for "Animal Feed and Bedding" is 50301. Similar codes include "Animal Feed and Bedding Supplies" (50303) and "Animal Care Services" (50277). However, the Department of Pharmacology classifies such expenses as "Other Contractual Services" (50207), while the Department of Physiology uses "Other Supplies" (50320). Other inappropriate classifications included large amounts of drugs and dietary requests charged to the "Other Supplies" account, while drugs have a special code (60306) and no specific code exists for dietary. On several occasions the President's Office charged a breakfast or luncheon to the

"Office Supplies" or "Other Supplies" category. Many of these IIT transactions involved the use of unrestricted (discretionary) monies.

The purpose of an expense code system is to provide uniformity of financial reporting. The code allows appropriated money and institutional revenue to be traced throughout the accounting system to its ultimate use. Generally accepted accounting procedures require uniformity and comparability of financial data as a foundation for decision-making, analyzing cost, and monitoring efficiency and productivity.

Signature Irregularities on IIT Orders

By design, each IIT form is to contain four signatures: the persons who (1) requested a transfer, (2) approved it, (3) received the goods or service, and (4) authorized payment from available funds. The Council found 585 (78%) of the 750 forms reviewed to have three or less signatures. Further inspection revealed sixty-one signature irregularities on transactions amounting to \$86,350. Such irregularities include unauthorized personnel signing IIT's, and the same person approving payment of his own request.

Each department determines which employees have sole signature authority. In some cases other employees may co-sign for access to departmental funds. Signature authorization cards are required for access to a fund, which usually include the Dean, Department Head, and the Principal Investigator (Project Director). However, in many cases departmental staff members have signature authority in addition to their purchasing and/or record-keeping duties. For example, an administrative assistant to the University President apparently has the sole authority to order stationary, charge breakfasts and luncheons, and

pay airplane fares. Likewise, a Department of Medicine business manager solely authorized over \$20,000 worth of renovations to the Clinical Science Building.

By requiring signature authorization on funds transfers, it is assumed that a minimal level of internal control is being maintained. This control is essential within the department to conform with MUSC fiscal policies and to provide coordination of financial activities. This practice further serves to protect employees from being wrongly accused if a questionable or erroneous transaction occurs.

Duplicate Use of "RQ" Control Numbers

Each purchase order form is pre-numbered with a five-digit control number following the letters "RQ." This number provides numerical order control over requisitions, facilitates retrieval of records, and is used as a reference number for each transaction initiated. The Council found 43 examples of duplicate voucher numbers as well as several examples of triplication. In addition, some departments have six-digit pre-numbered forms and haphazardly erase the first or last numerical digit to conform to the standard five.

The purpose of numerical control is to allow monitoring and reconstruction of accounting transactions. A pre-numbered forms system is designed to assist with file integrity and to provide a means of identification and reference. Further, it enables the agency to match funds with specific applications and aids in the orderly flow of financial data through the system.

Conclusion

These accounting weaknesses apparently stem from several sources of weakness in the MUSC system. The widespread use of clerical workers to facilitate transactions eases the time constraints on the professional staff, who are apparently unavailable during the business day. These assistants, under very limited supervision, have been charged with the responsibility to expedite IIT paperwork, despite the absence of written procedures or formal training on the subject.

The Accounting Department processes incomplete IIT forms and evidently has no monitoring process to point out irregularities. In addition, the expense classification manual produced by the Accounting Department contains expense code titles which are either too vague or too broad to ensure accurate classification. In the absence of a specific class code there is a tendency to aggregate expenses into non-descript "Other" accounts.

The General Stores Department randomly distributes Purchase Order forms to the various departments upon notice of depletion. There are no apparent standards concerning quantity issued, RQ number assignment, intended use, frequency, or other variables which may influence the likelihood of duplication.

The cumulative effects of these accounting deficiencies weaken the overall confidence and control within the purchase order (IIT) system. The financial consequences in these situations can be highly significant. Of the 750 transactions reviewed by the Council, more than half involved transfers in excess of one hundred dollars. It is estimated that during FY 77-78, between one hundred thousand and three hundred thousand

dollars in transfers have been classified in an inconsistent or inappropriate manner.

The wide diversity among the departments in classifying the same expense complicates the budgetary process and distorts budget analysis and planning efforts. Furthermore, in the absence of separation of duties and a more formal system of checks and balances, confusion and inaccuracy will continue and the possibility of abuse is increased. Unnecessary delays in the processing of paperwork will also continue without proper signatures, coding and description on IIT forms.

RECOMMENDATIONS

SPECIFIC WRITTEN PROCEDURES AND GUIDELINES FOR THE INTRA-INSTITUTIONAL TRANSFER OF GOODS AND SERVICES SHOULD BECOME AN INTEGRAL ELEMENT OF MUSC ACCOUNTING POLICIES. THEY SHOULD BE COMMUNICATED DIRECTLY TO THE PROPER DEPARTMENTAL OFFICIALS THROUGH PERIODIC SEMINARS AND/OR OFFICIAL MEMORANDA.

INPUT FROM THE DEPARTMENTS IS NEEDED TO EXPAND EXPENSE CODES AND THUS ELIMINATE OVERUSED, CATCH-ALL ACCOUNTS TO IDENTIFY LARGER EXPENSES.

MUSC SHOULD MONITOR AND REVIEW EXPENSE CLASSIFICATIONS ACTUALLY USED ON IIT FORMS.

THE DEVELOPMENT OF A FEEDBACK SYSTEM TO ALERT DEPARTMENTS VIOLATING STANDARDS OF UNIFORMITY, ACCURACY, AND EXPENSE CONTROL IS NEEDED.

THE ACCOUNTING DEPARTMENT SHOULD TIGHTEN AUTHORIZATION REQUIREMENTS TO ENSURE THAT A PROPERLY COMPLETED IIT FORM DOCUMENTS EACH TRANSACTION. A CROSS-CHECK OF SIGNATURES SHOULD BE MADE IF A TRANSACTION SEEMS QUESTIONABLE, EXCESSIVE, OR UNUSUAL. A RECEIVING SIGNATURE SHOULD BE MANDATORY TO INDICATE RECEIPT OF THE GOOD OR SERVICE AND ALSO TO VALIDATE THE ACTUAL COMPLETION OF THE TRANSACTION.

MUSC INTERNAL AUDITORS SHOULD CONDUCT A SYSTEM-WIDE REVIEW OF THE IIT PROCESS TO DETERMINE WHETHER THE DELEGATION OF SIGNATURE AUTHORITY TO CLERICAL AND ADMINISTRATIVE EMPLOYEES IS A JUDICIOUS PRACTICE. THERE IS A NEED TO ELIMINATE THE AMOUNT OF PERSONAL DISCRETION ON WHICH THE PRESENT SYSTEM RELIES.

THE GENERAL STORES DEPARTMENT SHOULD UPDATE ITS FORMS MANAGEMENT POLICY AND

CENTRALIZE THE ISSUANCE AND CONTROL OF
PRE-NUMBERED FORMS. THIS SHOULD INCLUDE
MAINTAINING A RECORD OF NUMBERED FORMS
ISSUED TO EACH DEPARTMENT. A FURTHER
STANDARDIZATION OF FORMS, PROCEDURES, AND
CONTROLS WILL LIMIT DUPLICATION AND PRO-
VIDE A REFERENCE FOR DEPARTMENTAL POLICY
OVER IIT ACTIVITY.

Illegal Discounts to MUSC Employees

MUSC is in violation of State law prohibiting perquisites or additional benefits to employees of the State. Section 129 of the State Appropriations For 1977-1978 State of South Carolina states:

That salaries paid to officers and employees of the State, including its several boards, commissions, and institutions shall be in full for all services rendered, and no perquisites of office or of employment shall be allowed in addition thereto, but such perquisites, commodities, services or other benefits shall be charged for at the prevailing local value and without the purpose or effect of increasing the compensation of said officer or employee. [Emphasis Added]

MUSC faculty, employees, and hospital interns and residents are allowed improper discounts for services received at the Medical University Hospital. MUSC provides these discounts in two ways. If there is no insurance to cover the costs of hospital or clinic services, a 50% discount is allowed. If insurance does exist, that portion of the bill covered is accepted and the remaining charges are allowed to be discounted. Discounts of these types to persons affiliated with MUSC totalled \$103,628 in FY 77-78 and were "written off" in the same manner as bad debts. The hospital absorbs this loss in revenue and the loss is passed on to the taxpayers of South Carolina. These perquisites, or additional benefits, also constitute inequitable treatment of State employees who do not receive discounted medical care.

RECOMMENDATION

MUSC SHOULD DISCONTINUE ITS POLICY OF AUTOMATIC DISCOUNTS ON MEDICAL CARE PROVIDED TO ITS AFFILIATES. THE SAME CRITERIA USED FOR OTHER PATIENTS SHOULD BE APPLIED TO THE FACULTY, EMPLOYEES AND HOSPITAL STAFF OF MUSC.

Delinquent Merit Reviews

An analysis of conformity to State personnel regulations revealed a problem at MUSC in maintaining the required merit review (or performance appraisal) dates of classified employees.

A September 1978 computerized listing of overdue classified employee reviews furnished by the State Personnel Division revealed 173 delinquent cases at MUSC. Forty-seven percent (47%) of these review dates ranged from one to five months late, nine percent (9%) were six to eleven months late, and forty-four percent (44%) were less than one month late.

State regulations require that all classified employees be evaluated at least once a year. South Carolina Personnel Rules, Section 2.04, state:

Each employee's review date shall be established six (6) months, to the date, following either an original appointment, a reinstatement appointment, or a promotional appointment when the appointment is at the minimum of the grade; or twelve (12) months, to the date, when the appointment is above the minimum of the grade. Thereafter, an employee may be eligible for a salary increase at the beginning of the payroll period coincident with or following the review date. [Emphasis Added]

Until October 1, 1978 MUSC awarded retroactive merit pay increases to begin on the review date required by the Personnel Rules regardless of the date the review was actually performed. However, Personnel Rules (Section 2.05 [6]) prohibit retroactive merit pay increases unless funds are unavailable for a pay increase at the time of the review date. Since MUSC no longer gives retroactive increases, a worthy employee may be penalized when his supervisors are negligent in performing timely appraisals because he does not receive the increase for the period between his required and actual review dates. One result can

be reduced morale and proficiency. Most importantly this practice reflects a breakdown in the management process which is designed to promote employee proficiency through regularly scheduled performance reviews.

RECOMMENDATION

MUSC SHOULD ADHERE TO STATE PERSONNEL REGULATIONS, ENSURING THAT SUPERVISORS PERFORM MERIT REVIEWS ON TIME. THE PERSONNEL DEPARTMENT OF MUSC SHOULD PROVIDE MONITORING SERVICES TO ASSURE PRIOR NOTICE OF APPRAISALS WHICH ARE DUE, AND TO DETECT AND REPORT OVERDUE PERFORMANCE APPRAISALS.

Nepotism

The Council's examination of nepotism revealed three problem areas which have a potentially significant impact. One instance of a violation of MUSC's personnel policies was noted. Also noted was a lack of policy regarding unclassified employees supervising relatives who are also unclassified. Finally, the interpretation of S.C. Code 8-5-10 exempting the Medical University of South Carolina as well as lower management positions in all State departments from the nepotism statute indicates the need for an adequate statewide nepotism policy.

The Council selected a sample of 62 groups of employees having identical surnames. The test revealed eight instances of married couples working in the same department. Two of these cases were found to be in violation of MUSC policy. When relatives work in the same organization the potential for covering up each others' errors or abuses is increased and internal accounting control is weakened.

Violation of MUSC Policy

The Council's review disclosed one instance of nepotism in violation of MUSC's policy. The University's Personnel Policies states: "Nepotism will not be practiced within the Institution unless it is impossible to fill the vacancy otherwise. Exceptions to this rule may be made only by the President... No person shall be appointed or transferred to a position which is within the direct scope or supervision of a member of his family or in the same organizational line of authority." According to the Personnel Director this does not apply to faculty employees.

In direct contradiction to this policy, a classified employee has been allowed to work for her husband, an unclassified employee. Consequently, he signs her time cards and administers her performance appraisals. Co-workers have complained about falsified time cards. Additionally, the subordinate employee has received maximum performance ratings for the past three years, illustrating the supervisor's ability to place more money in his family's possession.

Lack of MUSC Policy

The Council found an instance of nepotism not prohibited by MUSC Personnel Policy in which an unclassified employee has been allowed to work for her husband, who is also an unclassified employee. Allowing spouses to supervise one another results in a conflict of interest and encourages collusion.

Proper management practices should prevent this type of activity from occurring. A survey of management practices in the private and public sectors, including Federal, county and city government, revealed that regulations prohibiting nepotism were commonly accepted.

Need for a State Policy and/or Law

In the absence of a statewide policy or a comprehensive law, MUSC is probably not the only institution or agency of the State having problems or potential problems from the inconsistent treatment of nepotism. The 82 year old law (S.C. Code 8-5-10) governing nepotism in the State's departments is limited in coverage stating that:

It shall be unlawful for any person at the head of any department of this government to appoint to any office or position of trust or emolument under his control or management any person related or

connected with him by consanguinity or affinity within the sixth degree. [A separate law applies to school teachers.]

The term "head" constricts the law to the top official of a department, while the potential for a conflict of interest, collusion, and the like extends to all management levels of an organization. The applicability of this law has been further weakened by a 1969 legal opinion exempting "institutions" like MUSC because they are not "Departments" of government. While the opinion interprets the law strictly saying that criminal laws must be so interpreted, South Carolina's law has no apparent criminal penalties. In addition, the supervisory/working relationships which exist at MUSC are certainly comparable to other government entities and private business in the State.

RECOMMENDATIONS

MUSC SHOULD EXTEND ITS NEPOTISM POLICY TO COVER BOTH CLASSIFIED AND UNCLASSIFIED EMPLOYEES. ANY EXCEPTIONS SHOULD HAVE THE WRITTEN APPROVAL OF THE PRESIDENT.

S.C. CODE 8-5-10 SHOULD BE AMENDED TO BE APPLICABLE TO ANY DEPARTMENT, INSTITUTION, COMMISSION, BOARD, OR ANY OTHER UNIT OF GOVERNMENT OF THE STATE.

FURTHER, THE LAW SHOULD BE AMENDED TO PROHIBIT A PUBLIC OFFICIAL OR EMPLOYEE OF THE STATE FROM ADVOCATING, APPOINTING,

EMPLOYING, PROMOTING, OR ADVANCING A
RELATIVE IN HIS AGENCY OR IN AN AGENCY
OVER WHICH HE EXERCISES JURISDICTION OR
CONTROL.

FOR THE PURPOSE OF THIS LAW, A PUBLIC
OFFICIAL WHO RECOMMENDS OR REFERS A RELA-
TIVE FOR CONSIDERATION BY A PUBLIC OFFICIAL
STANDING LOWER IN THE CHAIN OF COMMAND,
FOR APPOINTMENT, EMPLOYMENT, PROMOTION,
OR ADVANCEMENT IS DEEMED TO HAVE ADVO-
CATED THE APPOINTMENT, EMPLOYMENT, PRO-
MOTION, OR ADVANCEMENT OF THE RELATIVE.
EMPLOYMENT SITUATIONS IN EFFECT PRIOR TO
ACTION UPON THIS RECOMMENDATION SHOULD
NOT BE AFFECTED UNLESS FOUND TO WARRANT
CORRECTIVE ACTION BY THE STATE ETHICS
COMMISSION.

ANY EXCEPTIONS TO THESE PROVISIONS SHOULD
REQUIRE WRITTEN APPROVAL OF THE STATE
ETHICS COMMISSION.

DEFINITIONS:

"RELATIVE" MEANS KINSHIP AS A WIFE,
HUSBAND, MOTHER, FATHER, SON, DAUGHTER,
BROTHER, SISTER, GRANDFATHER, GRAND-
MOTHER, GRANDDAUGHTER, GRANDSON,

GREAT GRANDFATHER, GREAT GRANDMOTHER,
UNCLE, AUNT, NEPHEW, NIECE, GREAT
GRANDDAUGHTER, GREAT GRANDSON, MOTHER-
IN-LAW, FATHER-IN-LAW, SON-IN-LAW,
DAUGHTER-IN-LAW, STEPMOTHER, STEPFATHER,
STEPSON, STEPDAUGHTER.

"PUBLIC OFFICIAL" MEANS ANY INDIVIDUAL
IN WHOM IS VESTED THE AUTHORITY BY
LAW, RULE, OR REGULATION, OR TO WHOM
THE AUTHORITY HAS BEEN DELEGATED, TO
APPOINT, EMPLOY, PROMOTE, OR ADVANCE.

"AGENCY" MEANS ANY DEPARTMENT, INSTI-
TUTION, COMMISSION, BOARD OR ANY
OTHER UNIT OF GOVERNMENT OF THE STATE.

Payment of Wages Not Due to an MUSC Employee

An employee of the Medical University received wages not due to him from the State of South Carolina, and the employee's supervisor signed erroneous time sheets on his behalf. This employee has been registered as a full-time student for the past ten months. During this period some of his courses were during business hours while receiving all the wages and benefits of full-time employment.

According to MUSC Personnel Officials, unwritten regulations require each MUSC department head to be responsible for determining whether an employee will be allowed to take time off for school and how that employee will make up the hours missed. In the case noted, the employee is not being required to make up lost time of at least one hour per day while attending classes. Additionally, co-workers confirm that the employee spends much of the business day studying for classes.

This situation does not comply with MUSC's regulation and is in conflict with the intent of S. C. Code 8-11-30, which states:

It shall be unlawful for anyone to receive any salary from the State or any of its departments which is not due, and it shall be unlawful for anyone in the employ of the State to issue vouchers, checks or otherwise pay salaries or monies that are not due to State employees of any department of the State..... Any violation of the provisions of this section shall be punishable by a fine of not more than \$5,000 or by imprisonment for not more than five years, either or both, in the discretion of the court.

Other than the waste of State money and inequity of employee treatment, several adverse effects are apparent. Interviews with the individual's co-workers revealed that low morale of the unit and complaints of poor service from various other departments are directly attributable to the individual's absence or inattention to duty.

RECOMMENDATIONS

A SPECIFIC WRITTEN POLICY FOR THE CONDUCT OF PERSONAL BUSINESS DURING WORKING HOURS SHOULD BE MADE A PART OF THE MUSC EMPLOYEES' HANDBOOK. THIS SHOULD BE APPLIED EQUITABLY THROUGHOUT MUSC. IN ALL INSTANCES TIME TAKEN OFF FOR SCHOOL SHOULD BE MADE UP THROUGH A SUITABLE AND APPROVED WORK SCHEDULE. SUCH WORK SCHEDULE SITUATIONS SHOULD NOT BE ALLOWED TO HAVE SIGNIFICANTLY ADVERSE EFFECTS ON JOB PERFORMANCE.

CHAPTER II

FINDINGS WITH STATEWIDE IMPLICATIONS

Introduction

During its audit of the Medical University of South Carolina, the Legislative Audit Council identified several problems that either exist in other State agencies or affect the provision of government services statewide. The Audit Council believes that it is important to address such problems in their broader applications as well as in the context of their direct relationship to the management of the agency being audited. This chapter presents a brief discussion of these issues.

Legislative Oversight of Capital Improvements

State-level accountability for capital improvement needs to be strengthened to allow adequate legislative oversight. Recent legislative actions have indicated the desire for more control over how all the State's resources are used. In 1976 the State Capital Improvement Bonds Committee was created recognizing the need for planning and study to ensure the continued favorable bond rating of the State. Further, the law acknowledges that "proper management of these matters is placed upon the General Assembly by our State Constitution." The importance of legislative oversight cannot be understated considering that the State's Capital Improvement Program presently authorizes \$595 million for several hundred construction projects.

Capital Improvement Bond Acts are the means by which the General Assembly can oversee, control, and direct the State's Capital Improvement Program. As a part of the appropriation process, such Bond Acts

impose a legislated ceiling on each area they describe. Within that ceiling agencies must plan for specific projects and obtain approval from the State Budget and Control Board to proceed. Fundamental to public accountability and legislative oversight is that administrative systems be designed to account and report spending in no less detail than specified when appropriated.

During the review of MUSC's Capital Improvement Program, the Council noted two weaknesses in the State's system.

- (1) Bond Acts Too General - Some Bond Acts are written in such general terms that efforts to determine how the Legislature intended the funds to be used are futile. For example, Bond Act 354 of 1973 authorized MUSC \$13.4 million stating only "Education Facilities," and Bond Act 1294 of 1974 authorized MUSC \$5 million stating only "Renovation and Equipment." Bond Acts are the basis for legislative direction and oversight. When the purposes of an Act are unclear, administration, monitoring, and auditing become difficult or impossible and the system becomes open to undetectable manipulation. The end result is a reduction of legislative control and a loss of legislative oversight.
- (2) Need for Accounting of Projects by Bond Act - The existing State-level system only monitors total funds authorized by all Bond Acts for an agency. Funds drawn by State agencies against Capital Improvement Bond Acts are not accounted for at the State level by individual Bond Act. This means that at the State level, the amount of funds used by an agency from a specific Bond Act is not known. Therefore, individual Bond Acts can be over-obligated

and the funds used for purposes other than those specified in the Act.

The need for this information was demonstrated in 1978 when the Legislature reduced MUSC's Bond Act 354 from \$13.4 million to \$7.5 million in order to reduce the State's total indebtedness. Agencies and institutions had to be surveyed to determine which Bond Acts could be reduced and to what extent. Surveying to gather information does not provide the necessary checks and balances and is cumbersome and time consuming.

Controls over project approval by the State Budget and Control Board are also hindered by this lack of information. For example, as of July 1, 1978 records indicated that MUSC had projects approved from Capital Improvement Bond funds for \$34.8 million, while the legislated limit for MUSC from such bonds was \$29.3 million. No agency should have approval for more funds than authorized by the Legislature. Additionally, the unexpended balance of funds for a project which has several sources may be diverted for other purposes.

Prior to 1974, the State maintained records identifying construction project allocations by Bond Act. However, with rapid expansion in the number and size of Capital Improvement Bond Acts and an increase in the number of construction projects under these Acts, the accounting practice was changed to the present method.

Currently, no State-level requirement exists for reporting a construction project's expenditures by source of funds. The practice

at MUSC, for example, is to draw Capital Improvement Bond funds from the Treasurer's Office, place the funds in the MUSC Capital Improvement control account, and transfer the funds as needed to cover expenses in any of MUSC's Capital Improvement project accounts. These project accounts may also be used to receive funds from other control accounts such as Institution Bonds or Federal Grants. A project's total expenditures are reported monthly to the State Auditor's Office. As funds from various sources are mixed in the project accounts, tracing the origin of funds to the ultimate application becomes very difficult. As projects expand or are completed, State-level monitoring of individual Bond Act limits becomes increasingly important.

The inability of the present system to provide the necessary checks and balances and to meet information needs inhibits the State Treasurer, the State Auditor and the State Comptroller from exercising fully their duties of office. These officials do not know when a specific Bond Act is depleted or for what specific purposes funds have been used. In addition, it is impossible for legislators to keep track of the amount of money spent on projects they have approved and the purposes for which these funds were expended.

RECOMMENDATIONS

TO MAXIMIZE THE LEGISLATURE'S ABILITY FOR OVERSIGHT BOND ACTS SHOULD BE WORDED SO AS TO DEFINE, IN DETAIL, THE PURPOSES AND SCOPE OF CAPITAL IMPROVEMENT PROJECTS TO BE FUNDED.

AUTHORIZED BOND AMOUNTS SHOULD BE SHOWN IN THE APPROPRIATION ACT WITH THE AGENCY RECEIVING THE FUNDS.

STATE-LEVEL RECORDS SHOULD BE MAINTAINED OF ALL CAPITAL IMPROVEMENT PROJECTS BY BOND ACT, ENSURING THAT ALL EXPENDITURES ARE FOR THE SPECIFIC PURPOSES MANDATED BY THE ACT, AND THAT EXPENDITURE LEVELS AND COMMITMENTS DO NOT EXCEED THE CEILINGS SET BY INDIVIDUAL BOND ACTS.

CONTROL AND SUBSIDIARY ACCOUNTING RECORDS SHOULD SHOW PROJECT EXPENDITURES BY BOND ACT AND OTHER SOURCES, AND SHOULD ALLOW FOR RETRIEVAL AND SUMMARY OF ALL EXPENDITURES AND COMMITMENTS BY BOTH PROJECT AND BOND ACT.

THE GENERAL ASSEMBLY SHOULD CONSIDER FURTHER STUDY OF THE STATE'S PERMANENT IMPROVEMENTS PROGRAM TO INCLUDE ALL FUNDING SOURCES SUCH AS FEDERAL, INSTITUTION BONDS, PLANT IMPROVEMENT BONDS, AND PRIVATE DONATIONS.

Distribution of Funds for Indigent Health Care

During the course of this audit the Council examined Medical University policy and practices for providing health care to medically indigent patients. The analysis included comparisons to policies and practices at other hospitals in the State. Based on this analysis, the Council concluded that inequities exist in the provision and financing of health care to medical indigents at both the State and county levels of government. The Medical University spent \$6.2 million to provide health care to Charleston County indigents. As a result, State funds inequitably subsidized Charleston County tax revenues (see Chapter I, p. 72). In addition, counties throughout the State that support hospitals through property taxes (e.g., Richland, Greenville) appear to be subsidizing health care for indigents from surrounding counties that do not have public hospitals.

An equitable system would provide services to eligible persons in the taxing jurisdiction that provides funding for the service. Services funded by the State should be available to all eligible persons in the State. If the service is funded through county taxes, it should be available to eligible county residents. When residents outside the taxing jurisdiction are serviced, some form of reimbursement should be provided by the taxing jurisdiction of the recipients.

At the present time, no statewide system for coordinating indigent health care exists. Many independent Federal, State, county and municipal programs provide various levels of care. For example, Medicaid and Title XX programs provide large amounts of Federal funding for indigent health care. State agencies such as the Department of Health and Environmental Control, Department of Social Services, Department

of Mental Retardation, Department of Mental Health and Department of Vocational Rehabilitation administer indigent health care programs. Counties and municipalities fund local programs and hospitals. Indigent health care is also provided by private sources. Hospitals that receive Hill-Burton construction funds are required to provide charity care. In addition, charity care is provided to some patients who are determined to be unable to pay. In other cases uncollectible bad debts owed to hospitals result, in effect, in charity care for those owing the money.

The existence of this situation results in an unfair tax burden for many citizens of South Carolina. In addition, the quality and quantity of medical care received is often based on geographical location (e.g., proximity of a hospital) rather than the patient needs.

RECOMMENDATION

THE GENERAL ASSEMBLY SHOULD MANDATE A COMPREHENSIVE STUDY TO DETERMINE THE ADEQUACY AND EQUITY OF INDIGENT HEALTH CARE SERVICES AND THE FUNDING OF THESE SERVICES.

Inspection of Pharmacies

Violations and inefficiencies found at the Medical University Division of Pharmaceutical Services (see p. 34) could be occurring in other State operated pharmacies. The Department of Health and Environmental Control is "primarily responsible for making accountability audits of the supply and inventory of controlled substances in the possession of pharmacists, doctors, hospitals, health care facilities and other practitioners as well as in the possession of any individuals or institutions

authorized to have possession of such substances" (S. C. Code 44-53-480). Inspections are required "...no less than once every three years" (S. C. Code 44-53-490).

Current inspection and auditing efforts were found to be inadequate to fully protect against abuse in State agencies. The Bureau of Drug Control of the Department of Health and Environmental Control does not conduct complete audits of State operated pharmacies. In the absence of independent audits and inspections, the major control and inventory mechanism does not exist. The intent of the mandatory inspection law is to diminish the possibility that controlled substances are being dispensed and/or removed from pharmacies unlawfully and without the knowledge of inspection officials. These inspections further serve to tighten the internal control of the registrant and to protect the public from the results of drug misuse.

RECOMMENDATION

INSPECTIONS OF ALL STATE OPERATED PHARMACIES SHOULD BE CONDUCTED ACCORDING TO LAW.

Perquisites and Benefits for State Employees

During the course of this audit, the Legislative Audit Council examined Medical University policies and practices concerning free or discounted medical care for Medical University employees (see Chapter II, p. 88). The Council compared these policies and practices with those of other agencies.

The Council found that a number of State agencies provide benefits or perquisites for their employees. These include free or discounted meals, free parking, free or discounted medical care, commissary privileges, housing, clothing allowances, etc. Such perquisites are in violation of State law and result in increased expense to the State. In addition, this practice runs counter to a major purpose of the State personnel system which is to ensure equal treatment and benefits for all State employees.

Numerous studies of this situation have been conducted, but the problem has been generally ignored. No significant changes have been made.

RECOMMENDATION

IMMEDIATE ACTION SHOULD BE TAKEN TO
ENSURE UNIFORMITY OF BENEFITS FOR ALL
STATE EMPLOYEES.

CHAPTER III

EDUCATIONAL PROGRAMS

Introduction

This chapter of the report provides a perspective of the educational effectiveness of the Medical University of South Carolina. Four of the six colleges within MUSC were examined: College of Medicine, College of Dental Medicine, College of Pharmacy, and College of Nursing. The College of Allied Health Sciences was excluded because of the numerous programs within the College, while the College of Graduate Studies was excluded because of its small size.

Three main areas were selected for comparison as measures of the educational effectiveness of the four colleges. The first area examined is the retention of MUSC graduates. "Retention" is the percentage or number of MUSC graduates remaining in or returning to South Carolina for practice. Retention of health professionals educated at MUSC reveals what kind of return on its investment South Carolina's taxpayers are getting by supporting the Medical University. Although MUSC does not solely control the retention of its graduates, the University can influence retention through such factors as admissions policies, knowledge of State needs, understanding of student career plans, and curriculum planning.

Performance of MUSC students and graduates on national professional examinations is the second means of assessing the effectiveness and quality of MUSC's education programs. When possible, LAC compared MUSC test scores with national and regional scores to indicate the relative effectiveness of MUSC. Such scores, when studied over a period of time, also reveal trends of improvement or deterioration in performance.

National professional accreditation status is a third indicator of the educational effectiveness of the Medical University. Professional accreditation by an official accrediting agency is a voluntary process. Its essential purpose is to provide a professional judgment by peers of the quality of the educational program offered. The professional accreditation status of each of the four colleges is discussed.

In some instances, additional comparative information on student enrollment and faculty is included. This miscellaneous information is presented as supplementary background to the individual college, and is not necessarily a measure of effectiveness.

Certain limitations were present which prohibited a more thorough analysis within the individual colleges. One problem frequently encountered was lack of comparable data. Generally, LAC did not re-collect information, rather, data were taken from existing sources. Certain characteristics or measures of effectiveness determined to be important, although available from MUSC on request, were not always available on a national or regional basis, thus preventing some comparisons. Some information presented may be several years old but it is useful in viewing trends over the years. Also, varying degrees of informational sophistication among the four professions examined were a hindrance. Medicine has a well organized and sophisticated information network on a national scale. The nursing profession, on the other hand, apparently does not have the resources or the capabilities to generate much of the statistical information which would enable certain meaningful national comparisons. Confidentiality on the part of the National League of Nursing as to accreditation and the American Association of Medical Colleges in general was also a limitation. Without comparable information, data from MUSC alone was not always meaningful.

This chapter of the report does not attempt to reach any sweeping conclusions about the effectiveness of the Medical University. Rather, its purpose is to present a broad performance profile of MUSC in comparison with the few measurable standards of quality which exist in health education today.

Summary

The Medical University of South Carolina has undergone some vast changes in the past five years leading up to FY 77-78. Since FY 73-74, its total budget has increased 57% from \$61.6 million to \$96.6 million while student enrollment has gone from 1,918 to 2,325, an increase of 21%. Accompanying this growth in finances and graduates has been an apparent improvement in the overall quality of health professionals produced.

The College of Medicine has witnessed the most substantial improvement in recent years. For many years, MUSC's medical school fell in the below average category in the performance of its students on national examinations before, during and after their medical education. Presently, the average performance of MUSC students is approaching the average performance of all United States medical students. Thus, MUSC has established an upward trend reaching the national average range.

The College of Dental Medicine is the newest college of the four examined in this report. Present indicators show MUSC's dental students perform at the average level of all dental students, both in the qualifications of entering students and the performance of students during their dental education on national examinations.

The College of Pharmacy's student scores on national exams have increased slightly in recent years, yet remain somewhat below national average scores.

The College of Nursing has perhaps the strongest program of the four colleges within its own profession. Student scores on the national examination are generally above the national and South Carolina average scores, although a lack of national comparative information makes a more in-depth analysis difficult. The College of Nursing most recently received the maximum length of accreditation possible.

Below is a table summarizing the comparative performance of the four colleges in the areas examined. Details of these rankings are presented in the following sections of this chapter.

TABLE 4
SUMMARY OF PERFORMANCE

	<u>Retention</u>	<u>National Examinations</u>	<u>Accreditation</u>
College of Medicine	AA	BA	A
College of Dental Medicine	NA	A	A
College of Pharmacy	NA	A	A
College of Nursing	NA	AA	AA

NA - Not Available
A - Average
AA - Above Average
BA - Below Average

College of Medicine

Introduction

The College of Medicine was founded in 1824 under the auspices of a Charleston medical organization. Known then as the Medical College of South Carolina, it is the oldest medical school in the South. In 1913, the South Carolina General Assembly made a stronger commitment to medical education in South Carolina and ownership of the school was transferred to the State. The medical school became the College of Medicine in 1969 when the institution was reorganized as the Medical University of South Carolina.

Most of the comparative information on medical education was provided by the American Medical Association (AMA) and the Association of American Medical Colleges (AAMC). Even though the medical profession has a sophisticated information system, few measures of educational effectiveness have been determined. The AAMC and the AMA compile, maintain, and publish extensive collections of data on a variety of topics including students, faculty financing, curriculum, and institutional characteristics. These resources provide an overall perspective of medical education in the United States but do not emphasize the effectiveness of any particular institution. For this reason, LAC did not include the mass of information available on medical education in this report.

Retention of physicians in South Carolina, performance of MUSC students on national examinations, accreditation status of the College of Medicine, and student enrollment characteristics will be examined in the following paragraphs. These areas should provide the Legislature with an indication of the quality and effectiveness of the institution and its contribution to health care in the State.

(1) Retention

According to the Journal of the American Medical Association,
December 26, 1977:

It has been the assumption that physicians tend to practice in areas in which they receive their graduate medical education. Therefore, graduates who are appointed to residencies in the state in which they received their medical education might serve as one of the predictors of the number of physicians who will practice in that state.

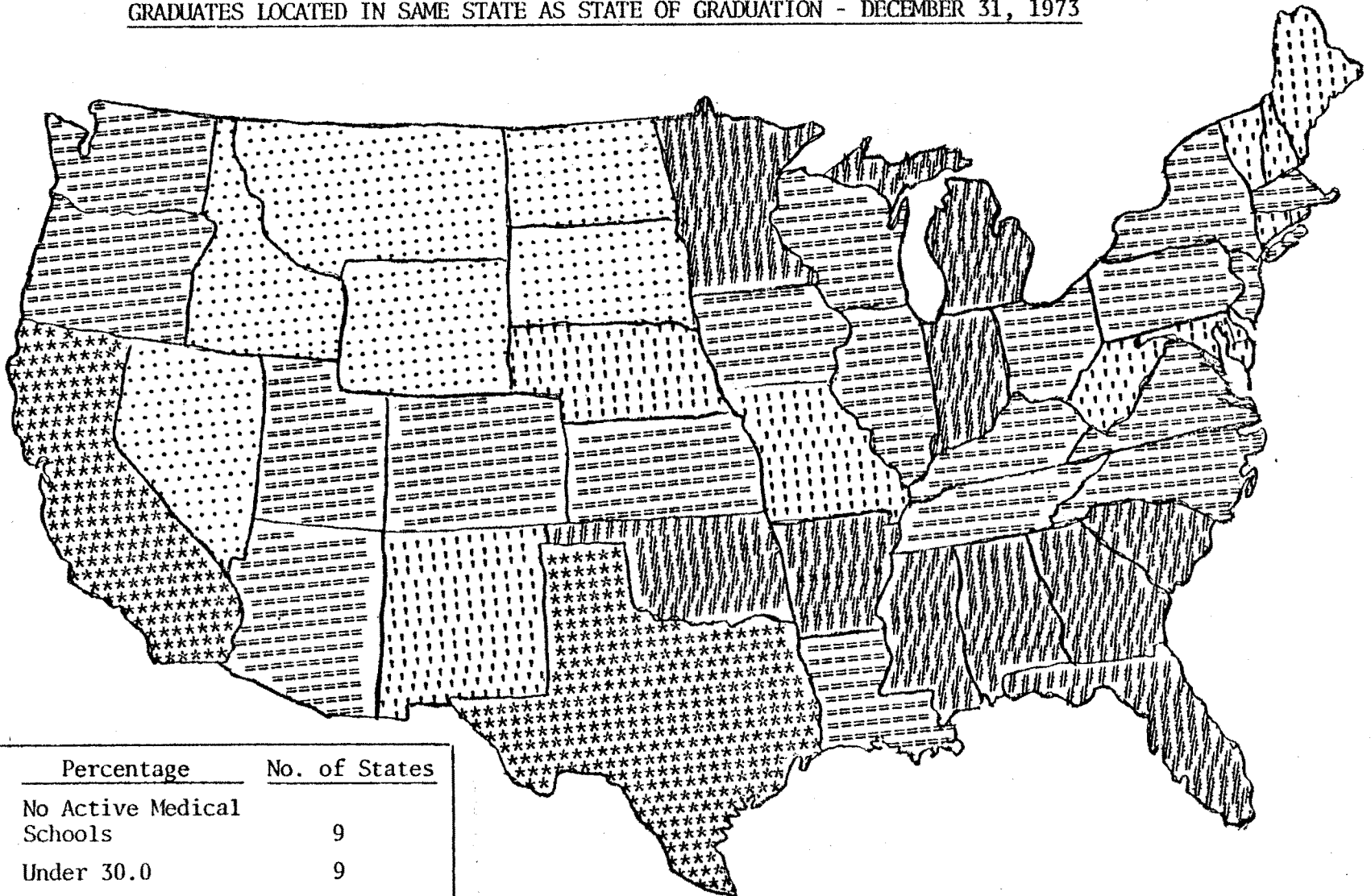
Forty-four percent of all physicians involved in internship and residency training as of December 1976 were located in the same state as the medical school they attended. For South Carolina, the retention rate for graduate medical training was 41%. South Carolina is losing more than the average number of physicians to internship and residency positions out-of-state. Assuming the relationship between residency location and location of practice holds true, South Carolina would also be losing more than the average number of graduates to practice out-of-state.

Information in the AMA publication Medical School Alumni reveals that this assumption does not hold true for South Carolina. As of December 1973, 59.4% of MUSC College of Medicine graduates were in active practice in South Carolina. Nationally, 40.5% of all United States medical school graduates remained to practice medicine in the same state in which they received their medical education. The map on page 113 illustrates how South Carolina compared nationally in the retention of physicians.

It seems apparent that a substantial number of MUSC graduates who went out-of-state for residency training are returning to South Carolina for practice. Yet the State has one of the lowest

TABLE 8

PERCENTAGE DISTRIBUTION OF UNITED STATES ACTIVE MEDICAL SCHOOL
GRADUATES LOCATED IN SAME STATE AS STATE OF GRADUATION - DECEMBER 31, 1973



LEGEND

Symbol	Percentage	No. of States
.....	No Active Medical Schools	9
	Under 30.0	9
=====	30.0 - 44.9	19
#####	45.0 - 59.9	10 (S.C.)
*****	60.0 - 75.9	2
		49

Note: Data are for 48 states and the District of Columbia.

SOURCE: Beverly C. Martin, Medical School Alumni, Professional Characteristics of U.S. Physicians by Medical School and Year of Graduation, American Medical Association (Rockville, Maryland, Aspen Systems Corporation, 1975), Map 3.

percentages of filled residencies in the nation. As of September 1976, 93% of all available residency positions in the United States were filled. In South Carolina, only 83% were filled. Only Maine, North Dakota, and South Dakota have fewer filled residency slots than South Carolina.

(2) National Examinations

The National Board of Medical Examiners administers the National Board Examination (NBE) to medical students in the United States. This examination is composed of three different parts, each part taken at a different point in a student's medical education. Part I is normally taken after completion of two years of medical school and tests knowledge of the basic sciences. Part II is normally taken during the last year of medical school and focuses on the clinical sciences. Part III is taken after graduation with at least six months' internship training. Each part is scored separately with a mean standardized score of 500. A score of 380 is the minimum passing score on the NBE. Passing all three parts of the NBE is one way in which a candidate becomes licensed to practice medicine in South Carolina. Passage of the Federal Licensing Examination (FLEX), a standardized test taken in three consecutive days, is an alternate means of obtaining a S.C. medical license.

The College of Medicine considers student performance on the NBE as one of the few objective measures of educational effectiveness on a national scale. According to the MUSC 1974 College of Medicine Self-Study...

The National Board Examination gives a measure not only of the students, but also of the faculty and the curriculum in comparison with similar institutions across the nation. Since

MUSC graduates are compared with graduates of other institutions for internship and residency programs, and ultimately as practicing physicians, a measure of comparison with the national standard through the National Board Examination is appropriate.

The requirements for participation in the National Board Examination program vary among schools. In 1975 the College of Medicine at MUSC began requiring a passing score on Part I of the NBE for advancement to the third year of medical school. Part II is not required by MUSC for graduation. Part III of the NBE is not required but is usually taken in conjunction with State licensing procedures. Table 9 shows the average performance of MUSC students on all three parts of the NBE in recent years.

MUSC's performance on all three parts of the National Board Examination has been consistently below the national average of 500. However, the tables do illustrate that the scores on all three parts are improving. Since passage of Part I has been required at MUSC, its scores have shown a steady improvement, equalling the national average in 1977.

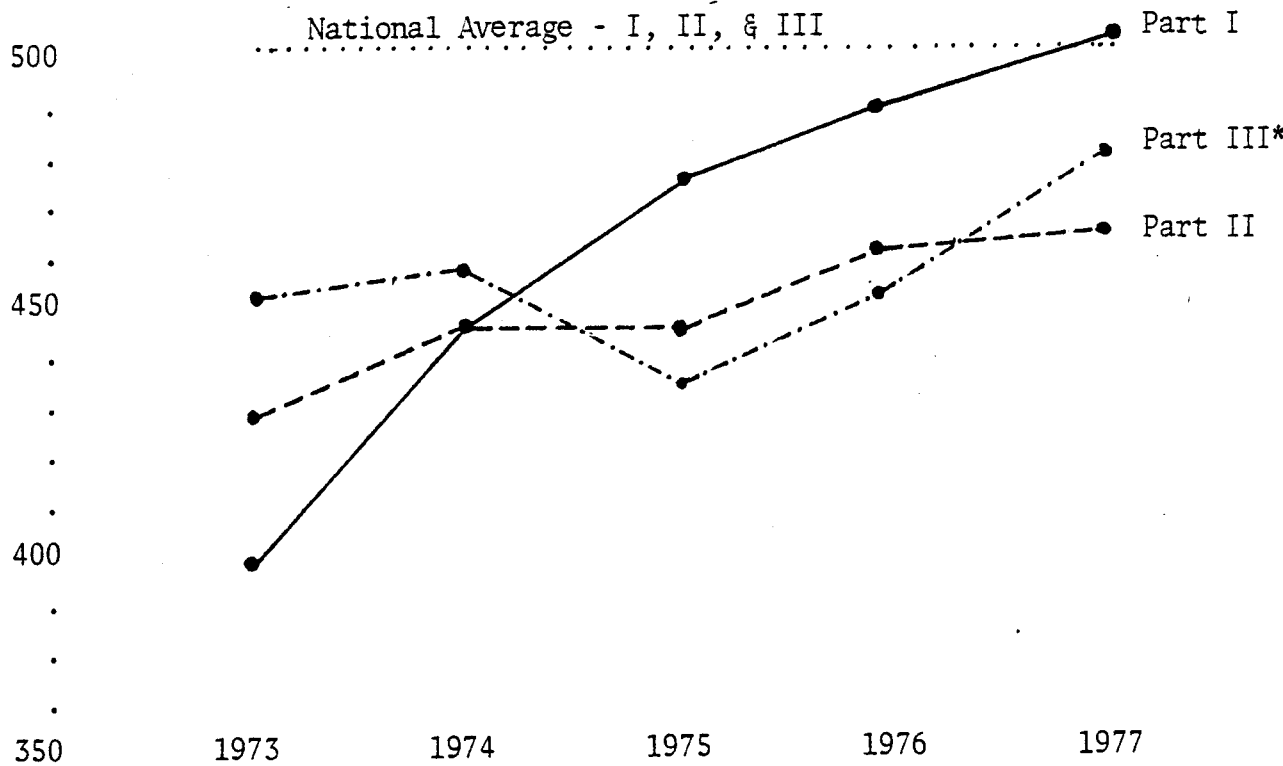
(3) Accreditation

The Liaison Committee on Medical Education (LCME) is the official professional accrediting body of medical education programs in the United States. Representatives of the American Medical Association (AMA) and the Association of American Medical Colleges (AAMC) serve as members on the LCME. Seven years is the maximum period of accreditation a medical school normally receives.

MUSC's College of Medicine was surveyed for accreditation by LCME in January of 1974. In follow-up letters dated June and August 1974, the LCME conferred full accreditation for a period of

TABLE 9

MUSC NATIONAL BOARD EXAMINATION AVERAGE SCORE, PARTS I, II, & III



Sources: MUSC College of Medicine, National Board of Medical Examiners.

Notes: Minimum passing score on NBE I, II, and III is 350.
Maximum possible score is 1000. National mean score is 500.

* Scores on Part III during the period ranged from 57 to 88 candidates of 122 to 181 total graduates. Remainder of graduates chose alternate means of State licensure.

four years rather than seven years, and requested a progress report on the finances of the school by early 1976. The August 1974 letter to the Dean of the College of Medicine contained the following:

It is clear that the concern of the Liaison Committee was with the continuing financial support of the Medical University of South Carolina by the State. It [the LCME] recognized that recent progress had been quite satisfactory. The Liaison Committee, as you may know, has been quite critical of State support to this institution prior to the last four years. In light of the past history, the LCME thought that a review at more frequent intervals than the maximum seven years was indicated...

The Journal of the American Medical Association (December 26, 1977) shows that of all accredited medical schools 50% received the maximum accreditation period of seven years when last surveyed while 29% including MUSC received four years or less.

In January 1978, the LCME sent an accreditation site team to the MUSC College of Medicine for another accreditation visit. The official accreditation report of the LCME has not been received by MUSC as of this writing.

(4) Student Enrollment

From 1971 to 1978 the class size of entering medical students has remained at 165 while the average U.S. medical school first-year enrollment has averaged 134 students. The total number of applicants to MUSC increased from 708 in 1971-72 to 1,206 in 1977-78. Of the entering medical students at MUSC in 1976-77, 95% were from South Carolina, while the average in-state first-year enrollment for all public medical schools in the nation was 91%..

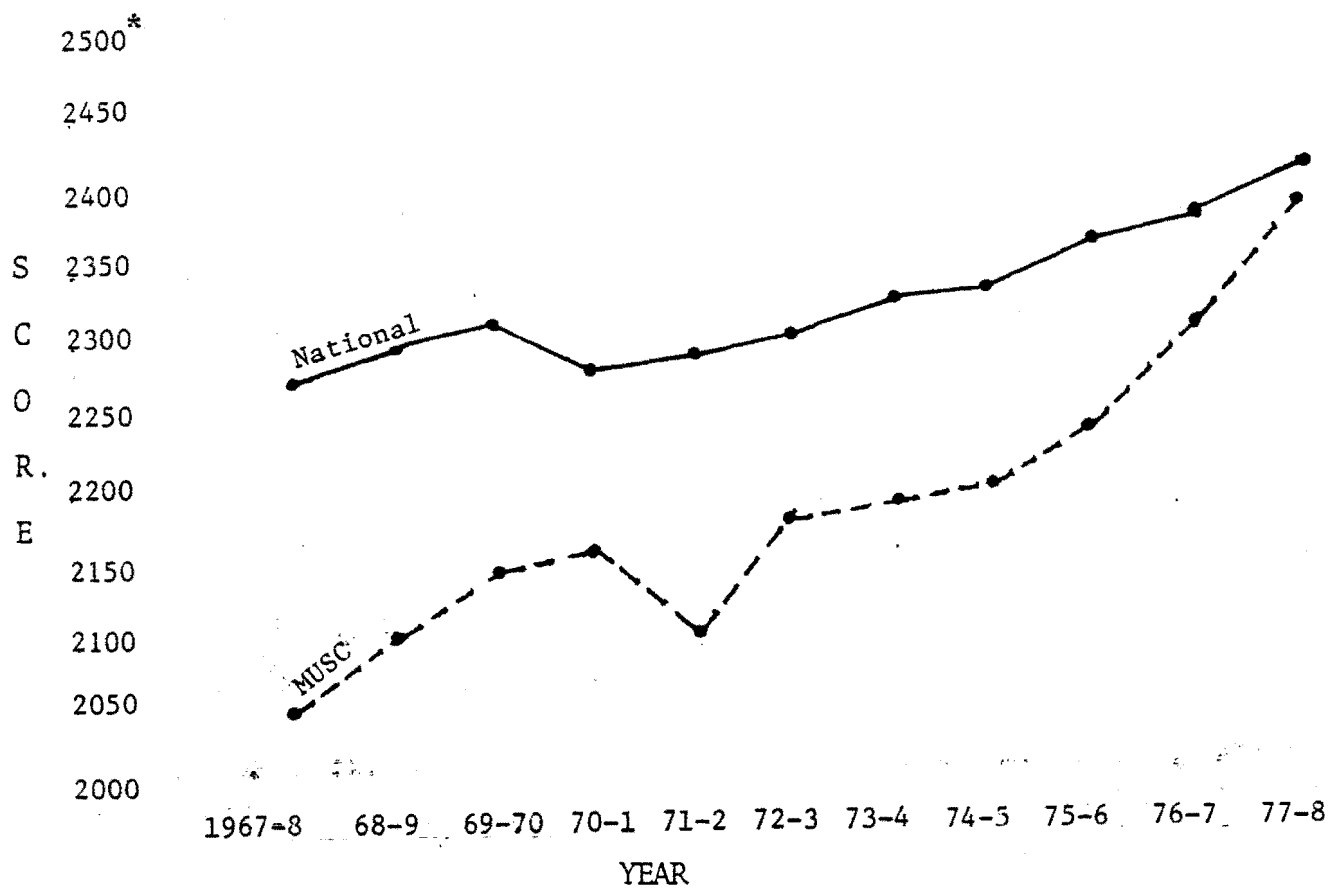
Nationally, women have represented 22.4% and 23.7% of the total 1976-77 and 1977-78 medical school enrollments respectively. Female enrollment at MUSC increased from 14.8% in 1976-77 to 17% of the total student body in 1977-78. Black enrollment for 1977-78 Southern medical schools averaged 6.65% while black enrollment for MUSC in 1977-78 was 4.1%. Nationally, black medical students averaged 5.9% in 1977-1978 of the total medical school enrollment.

The premedical grade point average (GPA) and the Medical College Admissions Test (MCAT) scores of entering medical students at MUSC are below the national averages. In 1976, 46% of all entering medical students in the United States had a premedical GPA of A (3.6 to 4.0 on a four-point scale) and 47.3% had a premed GPA of B (2.6 to 3.5). Of MUSC's entering students that year, 38.2% had a premed GPA of A and 60.6% had a premed GPA of B. However, the mean GPA of accepted applicants to the College of Medicine has risen substantially in recent years, from 2.9 in 1967 to 3.46 in 1977.

MCAT scores of all entering U.S. medical students have been increasing annually. MUSC scores, although consistently below the national average, have reflected this same trend. The following table illustrates this increase and allows a comparison of MUSC students' performance on the MCAT to the national average of all medical students (see Table 10).

Nationally, MCAT scores increased an average of 12.7 points per year between 1967 and 1978. MUSC's average increase during the same period was 33.4 points per year, substantially above the national increase.

TABLE 10
MEAN MCAT SCORES OF ACCEPTED APPLICANTS, 1967-1978
NATIONAL AND MUSC



Source: JAMA, December 1977 and December 1978; and MUSC College of Medicine.

* Highest possible score 3200.

College of Dental Medicine

Introduction

In 1964, the South Carolina General Assembly passed legislation providing funds for the purpose of developing a School of Dentistry in association with the Medical College of South Carolina. The first class of dental students was admitted in 1967 and graduated in June 1971. The School has undergone some major changes in leadership and curriculum since its establishment. A four-year curriculum went to a three-year program and back to the four-year curriculum. The College of Dental Medicine presently offers the four-year Doctor of Dental Medicine degree and postdoctoral education programs in oral surgery, prosthodontics, pedodontics, and general dentistry.

The American Association of Dental Schools (AADS) and the American Dental Association (ADA) provided the bulk of information for this analysis of the College of Dental Medicine. Licensing information was compiled by the State Board of Dental Examiners. Examination of the retention of MUSC dental graduates in South Carolina was possible due to data on dental manpower in South Carolina recently compiled by the Division of Research and Statistics of the Budget and Control Board.

According to the MUSC Catalog, "the primary aim of the College of Dental Medicine of MUSC is to educate dentists for practice in the State of South Carolina." This section will examine MUSC's effectiveness in meeting its aim of providing quality education to dental students and producing quality dentists for practice in South Carolina.

(1) Retention

Because the college was established in recent years, the location of its graduates has not been difficult to determine and

the impact of MUSC's dental school on dental manpower in South Carolina can be illustrated. Table 11 shows where the dentists who practice in South Carolina received their dental education. From 1950 to 1969, when South Carolina produced no dental graduates, its dentists were educated primarily in the southern states. After 1970, South Carolina's dental school educated 63% of the State's practicing dentists who graduated during the period 1970 to 1977.

TABLE 11
CIVILIAN DENTISTS PRACTICING IN SOUTH CAROLINA
BY LOCATION OF SCHOOL OF GRADUATION
APRIL 1977

<u>Location of School</u>	<u>Year of Graduation</u>				<u>Total Graduates</u>	
	<u>1950-1969</u>		<u>1970-1977</u>		<u>1950-1977</u>	
Alabama	12	2.5%	3	1%	15	2%
Georgia	85	18%	22	8%	107	14%
Kentucky	68	14%	23	8%	91	12%
North Carolina	29	6%	4	1%	33	4%
South Carolina	(a)		181	63%	181	24%
Tennessee	50	10.5%	4	1%	54	7%
Virginia	127	26.5%	10	3%	137	18%
All Other States	<u>108</u>	<u>22.5%</u>	<u>42</u>	<u>15%</u>	<u>150</u>	<u>19%</u>
Total Dentists Practicing in S.C.	479	100%	289	100%	768	100%

Source: South Carolina Health Manpower Report - Dentists.

(a) First class of MUSC dental students graduated in 1971.

Dental schools in Georgia and Virginia supplied almost 50% of all the dentists practicing in South Carolina before the establishment of a dental school at MUSC. The information does not reveal how many of these dentists were from South Carolina originally.

The total number of graduates of the MUSC College of Dental Medicine as of April 1977 was 257, not including 1977 graduates. Of this number, 242 or 94% were licensed in South Carolina by the State Board of Dentistry. Seventy-seven percent (199 out of 257) of the total number of MUSC dental school graduates were practicing or residing in South Carolina when the data on dental manpower in the State were collected in April 1977. This 77% figure reflects the State's retention rate of dentists educated in South Carolina.

According to a report published by the American Association of Dental Schools, as of 1977-78 South Carolina ranks 50th among the states and the District of Columbia in the ratio of dentists to population. The AADS states in this report that, "the ratio of dentists-to-population in a given state cannot be judged 'unfavorably' simply because it ranks low. Whether the ratio is actually favorable or unfavorable is more closely related to the demand for dental care in each state." The demand for dental care in South Carolina has not yet been measured. It is therefore difficult to determine if the State could support a higher dentist-per-population ratio.

South Carolina has been a recipient State for dentists in recent years. More dentists enter into practice in the State than withdraw from practice or leave the State. From 1976 to 1977, South Carolina gained 73 dentists active in patient care and lost only 23 dentists due to death, relocation, etc. Seventeen of the

73 (23%) entered into practice from out-of-state. Of those dentists practicing in South Carolina who graduated during the period 1972-1976, 26% received their dental education outside South Carolina.

The supply of dental manpower in the State is increasing. In the period of 1971-1975, the number of dentists in South Carolina increased by 22.5% (see Table 12). This increase was the third highest in the nation for that period, following Alaska and Florida with a 42.0% and 24.0% increase respectively.

TABLE 12

PERCENT INCREASE IN NUMBER OF CIVILIAN DENTISTS ACTIVE IN
PATIENT CARE - SOUTHERN REGION, 1971-1975

	Number of Civilian Dentists Active in Patient Care		% Change in No. of Dentists, 1971-75
	1971	1975	
Alabama	1,025	1,096	6.9
Georgia	1,373	1,670	21.6
Florida	2,605	3,230	24.0
Kentucky	1,147	1,263	10.1
Louisiana	1,276	1,470	15.2
Mississippi	618	613	-0.8
North Carolina	1,508	1,675	11.1
South Carolina	658	806	22.5
Tennessee	1,452	1,682	15.8
Texas	4,267	4,604	7.9
Virginia	1,798	2,027	12.7
Southern Region	17,727	20,136	13.6%
United States Totals	97,210	106,740	9.8%

Source: Health - United States - 1976-1977, DHEW.

Note: "Active in patient care" means providing patient care as the primary professional activity.

(2) National Examinations

The National Board Dental Examination is prepared by the Council of National Boards of Dental Examiners. The Council is composed of representatives from the American Association of Dental Examiners, the American Association of Dental Schools, and the American Dental Association. The exam provides a measure of candidates' knowledge and understanding of the sciences relating to dentistry and of the principles of dental practice. Part I of the exam is generally taken after completion of two years of dental school and Part II is usually taken shortly before graduation.

Performance on the National Board Dental Examination is one means of evaluating the competence and qualification of the candidates. Responsibility for this evaluation lies with the individual states' dental licensing boards. Currently, 51 of 53 United States licensing jurisdictions, including South Carolina, recognize National Board results. Results of the exam are reported in terms of standard scores. A score below 75 is considered a failure. The national average performance on both parts of the exam is 85. Table 13 reveals the performance of MUSC dental students on the National Board Dental Examination for the past five years.

TABLE 13

MUSC NATIONAL BOARD DENTAL EXAMINATION, PART I AND II
AVERAGE SCORE AND PERCENT PASSING, 1974-1978

Graduating Class of:	Part I*		Part II*	
	Average Score MUSC	% Passing	Average Score MUSC	% Passing
1974	85.7	91%	85.5	98%
1975	85.1	98%	85.9	100%
1976	85.1	98%	84.5	96%
1977	83.5	89%	84.4	93%
1978	85.5	92%	84.5	92%

Source: College of Dental Medicine, MUSC.

* National average on Part I and Part II is 85.

Passage of the National Board Dental Exam is now required in order to take the South Carolina State Licensing Examination. The State Licensure examination is given by the South Carolina Board of Dental Examiners and emphasizes competency in the clinical area of dental practice. The exam is graded by members of the State Board and is on a pass/fail basis. A score of at least 75 must be achieved by the candidate in order to become licensed to practice dentistry in South Carolina. Table 14 shows the performance of MUSC graduates on the South Carolina Licensing Examination in comparison to the total number taking the exam since 1975.

TABLE 14
PERCENTAGE PASSING DENTAL LICENSURE EXAMINATION IN S.C.
1975-1978

<u>Date of Examination</u>	<u>Total S.C.</u>			<u>MUSC Only</u>		
	<u>Appli- cants</u>	<u>Number Passing</u>	<u>% Passing</u>	<u>Appli- cants</u>	<u>Number Passing</u>	<u>% Passing</u>
June 1975	81	69	85%	52	51	98%
June 1976 & January 1977	110	98	89%	52	48	92%
June 1977 & January 1978	100	88	88%	59	57	97%
June 1978	75	71	95%	50	50	100%

Source: State Board of Dental Examiners.

MUSC dental graduates have been successful in recent years in passing the licensing examination in South Carolina. Recent performance on the dental licensing examinations of all applicants in South Carolina is compared to that of other states' applicants in Table 15.

TABLE 15
PERCENTAGE PASSING DENTAL LICENSING EXAM BY STATE

<u>State Board</u>	<u>% Passed 1972</u>	<u>% Passed 1975</u>	<u>% Passed 1976</u>
Alabama	95	95	86
Florida	71	81	58
Georgia	80	76	75
Kentucky	100	97	98
Louisiana	100	100	84
Mississippi	93	94	69
North Carolina	96	90	82
South Carolina*	92	92	85
Tennessee**	97	88	100
Texas	97	87	84
Virginia	93	96	100
Southern Average	92.2	90.5	83.7
National Average	91	89	87

Source: American Association of Dental Schools.

* This includes MUSC and any other applicants taking the exam in S.C. Information showing only MUSC was not available.

** Information is given for applicants who graduated prior to 1976. No information was provided by the state board for applicants who graduated in 1976.

(3) Accreditation

By the time of its first graduating class in 1971, the dental education program had received provisional approval from the Council on Dental Education of the American Dental Association. In December 1973, the accreditation classification was changed from provisional approval to approval for a five-year period. The Council on Dental Education specified that certain recommendations be implemented and a progress report be submitted prior to December 1974. November of 1978 was the scheduled time for the next accreditation site visit by the ADA Council on Dental Education.

(4) Student Enrollment

The College of Dental Medicine at the Medical University of South Carolina is one of the smaller dental schools in the United States. Its 1977-1978 enrollment size was 161 students compared to the average enrollment of 364 students in the 59 U.S. dental schools. In the ratio of applicants to acceptances to dental school, MUSC is below the national and southern averages. For every five applications received at MUSC for the academic year 1977-1978, one person was accepted (5:1). The national average ratio was 14:1. For southern public dental schools, the applicants to acceptance ratio for 1977-1978 was 6:1.

Although MUSC accepts a larger proportion of dental school applicants than the southern and national averages, the academic preparation of these entering students is equal to national standards. One measure of this academic preparation is performance on the Dental Admissions Test (DAT), a national entrance examination similar to the Medical College Admissions Test (MCAT). Scores on

the DAT are considered in the admissions process of most dental schools. There are two sections of the DAT: academic and perceptual motor. Each section is graded on a scale of 1 to 9. The national average grade in 1977-1978 on the academic section is 4.92 and 5.12 on the perceptual motor section. First-year students at MUSC in 1977-1978 averaged 5.0 on both sections.

College grade point average (GPA) is another factor which reflects an applicant's academic preparation for admission to dental school. Both the overall GPA and the science GPA of applicants are usually considered in the selection of students. MUSC students had an average predental GPA of 3.22 overall and 3.20 in science when accepted to the College of Dental Medicine for 1977-78. Nationally, the predental GPA of all first-year dental students the same year was 3.26 overall and 3.17 in science. Thus, MUSC dental students compare favorably with other dental students in the United States using DAT scores and GPA averages as measures of academic preparation.

MUSC is below the national average in the number of female dental students admitted. In 1977-78, women made up 15% of the total first-year enrollment in United States dental schools. At MUSC the same year, women made up 12.5% of the first-year enrollment.

(5) Dental Faculty

The College of Dental Medicine at MUSC has a full-time faculty of 49 members in the bio-medical departments and 45 members in the clinical departments. An additional 56 personnel are part-time faculty members in the clinical departments. Faculty in the bio-medical departments provide instruction in the Basic Sciences to

medical and dental students, although the classes are not presented together.

According to a report published by the American Dental Association, the average Student-Clinical Faculty ratio for instruction in dental schools in 1977-78 was 5.5 students for every one full-time clinical faculty instructor. Full-time status is equivalent to ten half-days of teaching per week. The student-clinical faculty ratio at MUSC was reported as 4.11 students to one full-time clinical faculty member which is lower than the national average ratio.

College of Pharmacy

Introduction

In 1881, the charter of the Medical College of the State of South Carolina was amended to create the Department of Pharmacy "in order that a more thorough course of instruction in the principles and practice of pharmacy should be established at this institution." The School of Pharmacy was organized in 1882, discontinued after two years, and then resumed in 1894. In that year, the School of Pharmacy began granting the Graduate in Pharmacy degree (Ph.G.) upon completion of a two-year course. A four-year baccalaureate program was instituted in 1935. Presently, the MUSC College of Pharmacy offers a Bachelor of Science degree in Pharmacy and a Doctor of Pharmacy degree. A student admitted to either program at MUSC must have successfully completed two years of prescribed pre-professional work in an accredited collegiate institution. An additional three years of professional training at MUSC is required for the Bachelor of Science in Pharmacy, and four years of professional training is necessary for the Doctor of Pharmacy degree.

The College of Pharmacy is a member of the American Association of Colleges of Pharmacy (AACP). The AACP is a national professional organization whose primary concern is the promotion of all aspects of pharmaceutical education. Comparative information on certain subjects of pharmaceutical education in the United States is collected and maintained by the AACP. The AACP provided LAC with a detailed report on student enrollment in pharmacy schools in the United States. Comparative information on academic preparation of entering pharmacy students, financial support, attrition, and retention of graduates was

not available on a national basis from the AACP. Resources do not exist at this time on the national professional level to present a thorough comparative analysis of the MUSC College of Pharmacy. However, the information contained in this report should allow an objective look at MUSC's effectiveness in the education of pharmacists and the College's contribution to pharmacist manpower in the State.

(1) Retention

Two State-supported institutions of higher learning in South Carolina, including MUSC, offer a baccalaureate degree in pharmacy. No comparative information was available from the AACP on the retention of graduates nationally. The Division of Research and Statistics of the State Budget and Control Board was, however, able to provide LAC with information on South Carolina pharmacy graduates.

According to information from the Division of Research and Statistics, 37.3% of all active pharmacists in South Carolina as of January 1978 graduated from pharmacy school during the period 1970 to 1977. Of these graduates 83% (542) received their education in South Carolina. MUSC produced 178 or 33% of the 542 recent graduates who were educated in-state and remained in-state to practice. During the period 1970 to 1977, a total of 280 pharmacists graduated from MUSC. Thus, the retention rate of MUSC pharmacy graduates in South Carolina is 63.6%.

(2) National Examinations

In order to become a Registered Pharmacist in South Carolina, a graduate of an accredited school of pharmacy must pass the

South Carolina Board of Pharmaceutical Examiners' licensing examination. South Carolina uses the NABPLEX (National Association of Boards of Pharmacy Licensing Examination) as the main component of its licensing examination. The NABPLEX is divided into five areas: pharmacology, mathematics, chemistry, pharmacy, and a practical section. There is also a section on State law or jurisdiction in relation to the practice of pharmacy in South Carolina. A score of 60% on each part is required with a 75% average overall to pass the exam in South Carolina. As of June 1976, the NABPLEX is the accepted national examination for pharmacy licensure.

NABPLEX is prepared by the Educational Testing Service of Princeton, New Jersey in conjunction with the National Association of Boards of Pharmacy.

Table 16 provides a comparison of MUSC pharmacy graduates' performance on the licensing examination with the performance of other graduates nationally.

TABLE 16
AVERAGE RAW SCORES ON NABPLEX, JUNE 1976

	<u>Pharmacology</u>	<u>Mathematics</u>	<u>Chemistry</u>	<u>Pharmacy</u>	<u>Practice</u>
MUSC	77.87	78.59	71.91	67.29	78.70
Nation	78.57	80.00	72.00	68.00	74.50

Source: State Board of Pharmaceutical Examiners.

Graduates of MUSC College of Pharmacy scored slightly below the national average on four out of five sections of the NABPLEX in 1976 although scores of MUSC graduates on the overall exam have risen slightly in recent years from 78.01 in 1973 to 82.5 in 1977. South Carolina's performance on the NABPLEX is below the southern regional district average. Table 17 summarizes the performance of those taking the NABPLEX in South Carolina compared to the performance of the southern district for the period of June 1976 through February 1977.

TABLE 17
NATIONAL, DISTRICT,* AND SOUTH CAROLINA AVERAGE SCORES ON
NABPLEX, JUNE 1976-FEBRUARY 1977

<u>Subject</u>	<u>National</u>	<u>District III*</u>	<u>South Carolina</u>
Chemistry	70.97	66.92	65.26
Pharmacology	76.25	71.82	71.70
Pharmacy	69.27	64.69	63.20
Mathematics	79.41	77.81	73.26
Practice	74.63	72.56	74.58

Source: State Board of Pharmaceutical Examiners.

Note: Information unavailable for MUSC graduates only.

*District III includes: North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Puerto Rico, and Virgin Islands.

(3) Accreditation

The American Council on Pharmaceutical Education (ACPE) is the nationally recognized accrediting agency for professional pharmacy programs. According to the ACPE, the primary purpose of the accreditation process is to "provide a professional judgment of the quality of the educational program offered and to encourage continued improvement thereof." The normal period of the accreditation cycle is six years.

Since 1956, the College has been visited 7 times: 1956, 1958, 1963, 1966, 1968, 1973, 1976. Whatever difficulties or special circumstances which necessitated a more frequent look at the College of Pharmacy by the ACPE have evidently been resolved, since the normal length of accreditation was received after the most recent ACPE visit. The next accreditation visit for both degree programs is scheduled for the 1982-83 academic year.

(4) Student Enrollment

Student enrollment in the College of Pharmacy at MUSC has risen slightly in recent years. Entering class size has been around 62 slots. The College of Pharmacy is a small school in terms of student enrollment compared with others in the country and the southern region. Total enrollment for 1977 was 188 students: 181 Baccalaureate students and 7 Doctor of Pharmacy students. Of those 188 students seeking a degree in pharmacy, 155 (82%) are residents of South Carolina. A total of 388 South Carolinians were enrolled in pharmacy schools in the Fall of 1977. Over 96% of these attended the State's two institutions; 40% were enrolled at MUSC. The remaining 4% went out-of-state for their pharmacy

education. Nationally, 80% of all pharmacy students attended pharmacy school in their home states.

In 1977, MUSC had a female enrollment of 27% of the total pharmacy student body, the lowest in the South and one of the lowest figures in the nation. The national average female enrollment in pharmacy schools is 38%, an increase of 2.5% over 1976 enrollments. The proportion of black students at MUSC is 5.8% compared to 4.2% nationally.

A report on student enrollment issued in the Fall of 1977 by the American Association of Colleges of Pharmacy (AACCP) reveals a slight decline in enrollment in professional pharmacy degree programs for the second straight year. According to the report, this decrease perhaps reflects a stabilization of the size of the pharmacy student population after steady increases during the period of 1970-1975.

College of Nursing

Introduction

The College of Nursing of the Medical University of South Carolina originated in 1882 as a "Training School for Nurses." In 1919, this Training School became the School of Nursing of the Medical College of the State of South Carolina. When the Medical College was renamed the Medical University of South Carolina by the State Legislature in 1969, the School of Nursing became one of the six colleges composing the University. The College of Nursing presently offers a Bachelor of Science degree in Nursing and a Certificate program in Nurse-Midwifery. The College is also in the process of organizing a degree program for the Master's of Science in Nursing.

The College of Nursing and the South Carolina State Board of Nursing were extremely cooperative in providing LAC with requested information. However, the national professional nursing organizations do not collect, and in some cases would not provide, various types of information regarding nursing students, faculty, attrition, finances, examination scores, etc. Thus a comparison of certain aspects of the MUSC College of Nursing with national statistics of all United States nursing schools was prevented.

(1) Retention of Nurses

Table 18 shows the retention rates of the registered nurse graduates of the Baccalaureate Degree Programs at MUSC, Clemson and USC. The last column shows the total number of graduates of the programs during the years 1972-1976. Of these 1,055 graduates, 433 (41%) maintained a S.C. license and were actively in practice in the State as of April 1977. During 1972-1976, MUSC graduated 231 nurses. Of these 231, 120 or 52% were in active

practice in South Carolina as of April 1977. Clemson retained 52% of its graduates while USC retained 34% during the same period. Eighteen percent of MUSC's graduates had maintained South Carolina licenses but were out-of-state, compared to 6% and 14% for Clemson and USC. MUSC has the smallest percentage of graduates in "unknown" status during the period.

TABLE 18
RETENTION OF 1972-1976 GRADUATES OF SOUTH CAROLINA
BACCALAUREATE DEGREE NURSING PROGRAMS
APRIL 1977

	<u>Active in</u> <u>S.C. (a)</u>	<u>Inactive</u> <u>in S.C. (b)</u>	<u>Out-of-</u> <u>State (c)</u>	<u>Unknown &</u> <u>Other (d)</u>	<u>Total Graduates</u> <u>1972-1976</u>
MUSC	120 (52%)	13 (6%)	43 (18%)	55 (24%)	231 (100%)
Clemson	90 (52%)	6 (3%)	11 (6%)	67 (39%)	174 (100%)
USC	223 (34%)	26 (4%)	92 (14%)	309 (48%)	650 (100%)
Total	433	45	146	431	1,055

Source: S.C. Health Manpower Report - Registered Nurses and Licensed Practical Nurses.

Notes:

- (a) Refers to those graduates having South Carolina licenses and engaged in active nursing practice.
- (b) Refers to those graduates having South Carolina licenses who are not engaged in active practice.
- (c) Refers to those graduates having South Carolina licenses who are not in South Carolina.
- (d) Refers to those graduates without South Carolina licenses on Official Inactive Status, and those graduates whose practice status is unknown.

(2) National Examinations

The State Board Test Pool Examination (SBTPE) is the national examination used in the licensing of registered nurses. Upon graduation, the SBTPE is given to recipients of Associate Degrees, Diplomas and Baccalaureate Degrees. The exam, developed by the Council of State Boards of Nursing is administered throughout the United States. Its purpose is to ensure that a basic understanding of safe and effective nursing practices exists at the time of a candidate's licensure. In South Carolina a passing score of 350 is required to become a licensed registered nurse.

The percentage of graduates from MUSC College of Nursing passing the SBTPE has been high in recent years. While the SBTPE measures only minimum competency in the basic nursing skills required for practice, MUSC appears successful in this regard when compared to other nursing schools in South Carolina, the South and the nation. Table 19 indicates that MUSC's percentage of graduates passing has declined slightly while South Carolina and the nation as a whole have dropped more significantly.

TABLE 19
PERCENTAGE OF GRADUATES PASSING SBTPE 1975-1977
MUSC, NATION, AND SOUTHERN STATES

<u>Year</u>	<u>Nation</u>	<u>MUSC</u>	<u>S.C.</u>	<u>Fla.</u>	<u>N.C.</u>	<u>Ga.</u>	<u>Tenn.</u>
1977	86.0	97.0	81.3	92.5*	76.0	62.0	90.8
1976	86.5	97.9	84.0	85.4	77.0	67.4	90.4
1975	89.0	100	88.8	80.6	82.0	74.3	91.2

Source: South Carolina State Board of Nursing.

Note: Scores reported are for Baccalaureate graduates only.

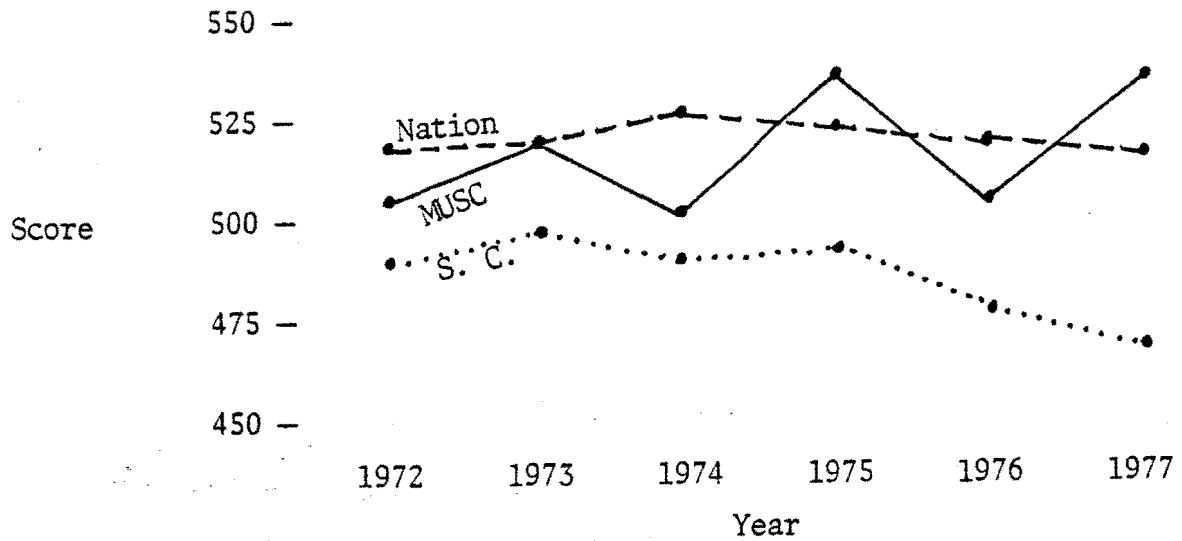
* Does not include July 1977 SBTPE results.

The SBTPE is composed of five separately scored functional areas; medical, surgical, obstetric, pediatrics, and psychiatric. In recent years, the average score of MUSC graduates taking the exam has risen in some areas and fallen in others. The graphs on pages 143, 144, and 145 compare MUSC average scores with the State and national averages since 1972.

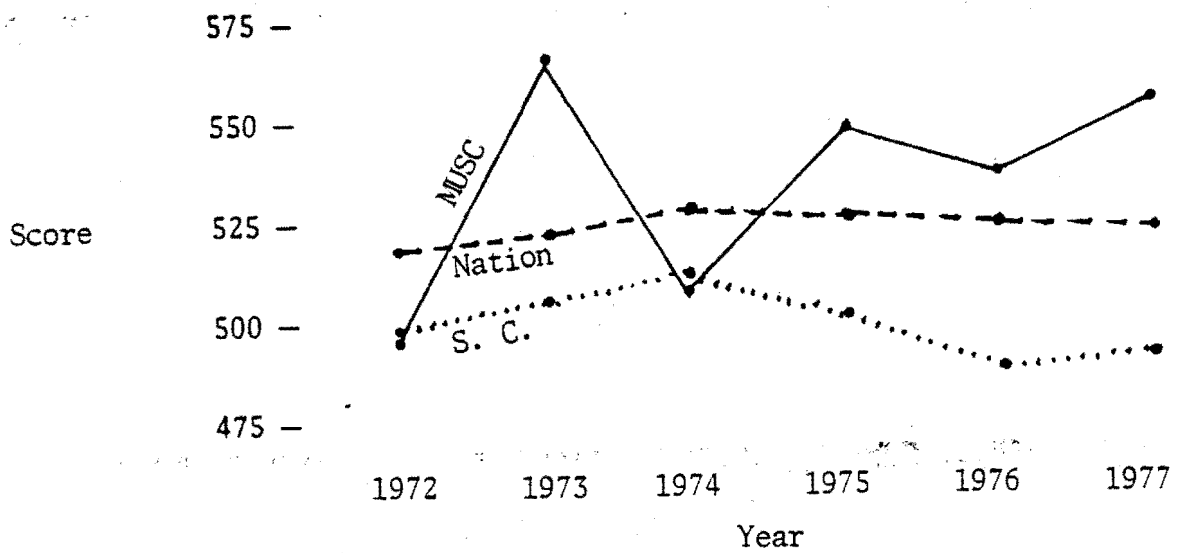
MUSC's performance on the SBTPE is well above the overall performance of the State's nursing graduates. In several cases, the College of Nursing's graduates have scored higher than the national average scores.

SBTPE FUNCTIONAL AREA GRAPHS

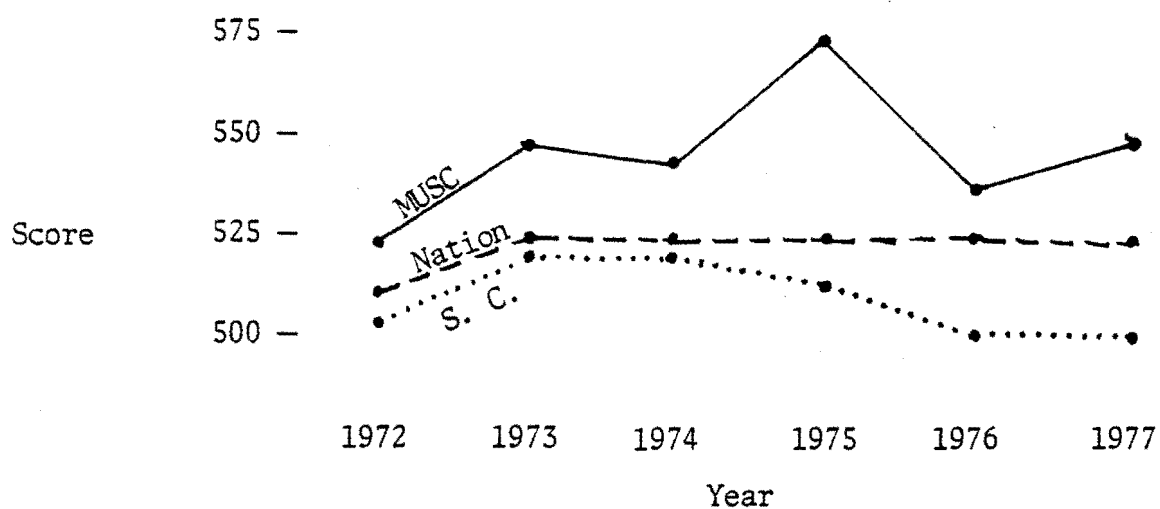
Average Scores - Medical



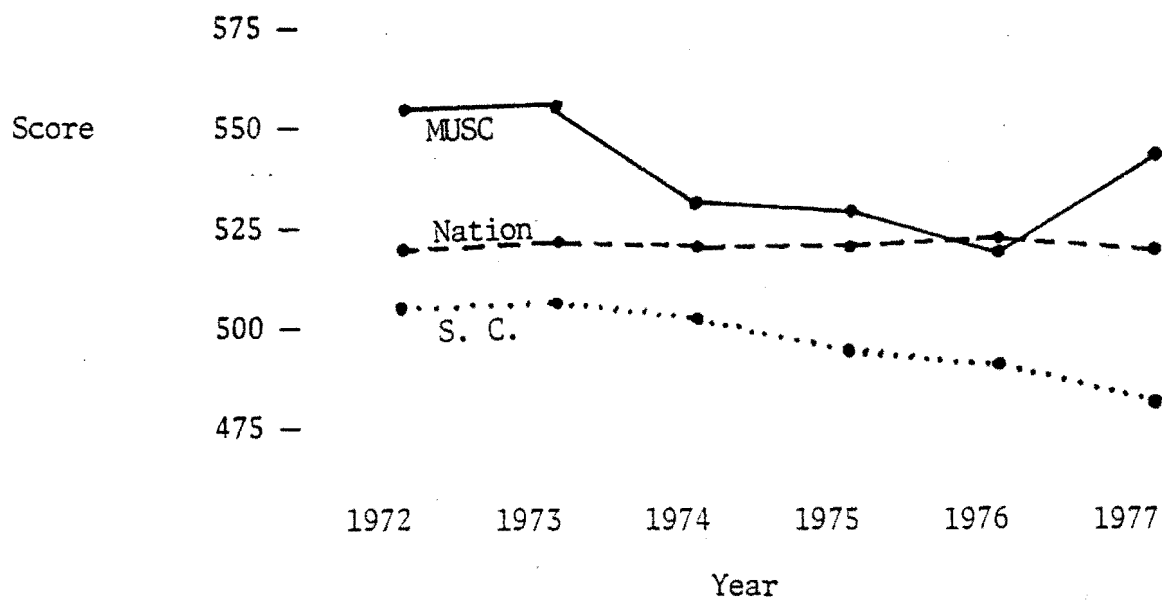
Average Scores - Surgical



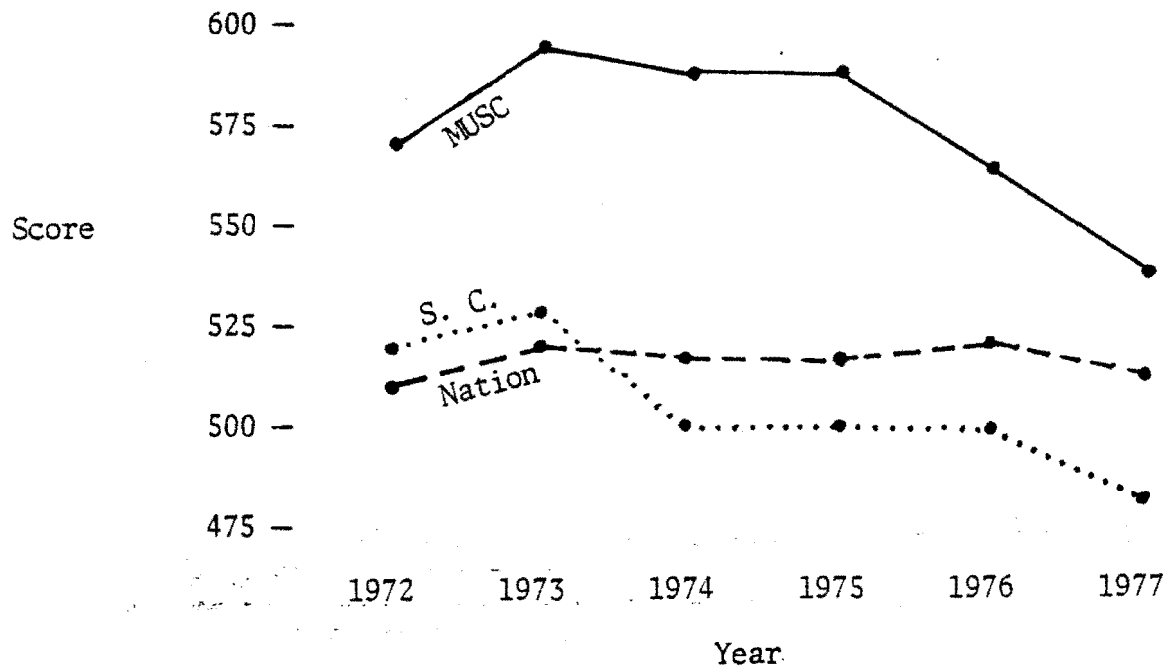
Average Scores - Obstetric



Average Scores - Pediatrics



Average Scores - Psychiatric



Sources: MUSC College of Nursing, S.C. State Board of Nursing.

Notes: Maximum score is 800. Minimum passing score is 350.
 1972 and 1973 scores reported are for period June to May.
 1974 scores reported are for major testing period of June 1974 only.
 1975 to 1977 scores reported are for major testing period of July only.

Graduates of the Nurse-Midwifery Certificate Program offered by the MUSC College of Nursing are also required to pass a national examination in order to become licensed or "certified" in their profession. This certification examination is administered by the American College of Nurse-Midwives (ACNM). All graduates of Nurse-Midwifery Programs in the United States must achieve the passing score of 375 on the ACNM exam in order to become a Certified Nurse-Midwife.

The Nurse-Midwifery Certificate Program at MUSC admitted its first class of nine students in 1975. Thirty-three graduates have completed the program and been tested for certification. Of these thirty-three candidates, thirty passed the ACNM exam for a percentage passing rate of 90.9%.

An average score of MUSC candidates on the exam compared to a national average score of all examinees is available only for the period of May 1975 through April 1976. This period includes the performance of MUSC's first graduating class of nine Nurse-Midwives. The average score of MUSC candidates was 495, below the national average score of 520.5.

(3) Accreditation

The National League for Nursing (NLN) is the national accrediting agency for nursing education recognized by the Council on Postsecondary Education, the United States Office of Education, and by the nursing profession.

The Baccalaureate Degree Program of the MUSC College of Nursing received continued accreditation with recommendations from the National League of Nursing in 1976. That accreditation was

for the maximum period allowed, eight years. Because the NLN refused to disclose specific information to LAC about Baccalaureate programs which received accreditation for the maximum period, a detailed analysis was prevented. Apparently, the number of programs that were granted initial or continuing accreditation without recommendations is very small. Of the total number of accredited Baccalaureate programs during the period 1964-1974, only 4.7% (11 out of 234) received accreditation without recommendations.

The Nurse-Midwifery Program of the MUSC College of Nursing received approval from the American College of Nurse-Midwives (ACNM) in April 1976. The ACNM has four options in considering approval of a Nurse-Midwifery Program: (1) Approval without recommendations, (2) approval with recommendations, (3) approval with specified conditions, and (4) approval denied. The program at MUSC received approval without recommendations for the maximum period of five years.

CHAPTER IV
REVIEW OF ALLEGATIONS

Introduction

LAC received various allegations concerning the operation and activities of MUSC. This chapter will cite specific allegations included in the Council's review. It provides a concise statement of the allegation, a discussion of what the Council's investigation revealed and the Council's conclusions. In some instances a brief discussion was considered insufficient, therefore, references are made to the page numbers within this report which contain related information or further details.

(1) Embezzlement of \$186,557.89

Between December 1976 and February 1977 \$186,557.89 was embezzled from MUSC. The Council reviewed the embezzlement and subsequent investigations undertaken by MUSC's Internal Auditor and the State Auditor. Both the Internal Auditor and State Auditor made recommendations to ensure that another such incident would be "more difficult to occur and easier to detect."

As of December 1978, two of the three suspects in the case had been apprehended and convicted. They received prison sentences of six and eight years. The third suspect is still at large. None of the embezzled money has been recovered.

The primary weakness in the accounting controls was the ability of an accounting clerk to change the address of a vendor file without supervisory approval. As a result, three checks were sent to the improper address and ultimately embezzled.

Conclusion

Internal accounting controls at MUSC have been strengthened. Although the measures taken can deter fraud by an individual, no procedure is invulnerable to fraud when collusion is involved.

(2) Shooting incident is related to other events at MUSC

The Council investigated a shooting incident which occurred at the University on April 18, 1977. On that day a man entered the Administration Building, went to the second floor of the building, and fired five pistol shots into the ceiling. No one was injured and the man escaped by walking out an exit door on the first floor of the building.

Several suspects were apprehended by the Charleston City Police but witnesses to the incident could not identify any of them. To date no one has been arrested, no new clues are available and the case remains open. The police feel this incident was the action of an unbalanced person who randomly picked MUSC's Administration Building as a site to vent his frustrations.

Conclusion

Based on this information, LAC concludes that the incident was an event unrelated to any other activity at MUSC.

(3) Improper dismissal of top officials by MUSC's Board of Trustees

This allegation focused on the dismissal of former MUSC President Dr. William M. McCord in 1975. The Board was accused of firing McCord without reason.

The trustees have taken the position that Dr. McCord served at the "pleasure of the Board" by law and that they were free to make administrative changes without stating a cause of action.

Conclusion

The Council reviewed the relevant statute and supports the position that the Board is both responsible and authorized to make this decision.

(4) Improper Influence by Board of Trustee Member

It was asserted that in 1974, a Board member of MUSC attempted to have a relative selected as the real estate broker for the University's purchase of the Castle Pinckney Motel.

The South Carolina Law Enforcement Division (SLED) investigated this allegation and no charges were brought as a result of the investigation. LAC reviewed the report of investigation conducted by SLED in 1975. The Council also learned that MUSC purchased the motel in 1976.

Conclusion

The appropriate real estate broker, who is not related to the Board member, completed the transaction and received the commission.

(5) Excessive travel

MUSC's travel costs are excessively high and occur close to the end of the fiscal year. The Council analyzed travel expenses by MUSC for FY 77-78 and compared these costs with those of the University of South Carolina.

MUSC spent \$974,913 during FY 77-78 on travel with a total of 1,039 of its 5,460 employees receiving travel funds. Of these 1,039 employees, 214 or 21% incurred travel expenses totaling \$483,529 or 50% of MUSC's total travel payments.

These 214 employees spent \$183,968 or 38% of their travel funds during the last quarter of the fiscal year. Overall 39% of MUSC's total travel expenses (\$383,143 out of \$974,913) was spent during the last three months of the fiscal year.

Comparing the University of South Carolina's (USC) travel expenses, for 5,956 employees, shows that MUSC's total travel expenditure for FY 77-78 was more than three times that of USC. In the fourth quarter of FY 77-78 MUSC reported \$383,142.66 in travel expenses while USC's reported travel was \$322,768.84 for the entire fiscal year.

In addition, the Council examined the miscellaneous expenses charged to travel (taxi fares, rent-a-car, etc.) by MUSC. These expenses in the last three months of FY 77-78 totaled \$51,003. Eighty-seven percent of this amount (\$44,290) went to 214 travel recipients who received an average of \$50 or more in miscellaneous travel expenses.

Conclusion

Based on the travel expenses reported by MUSC and the comparisons with USC, the Council concludes that the University does have high travel expenditures at year end.

(6) Inadequate Property Inventory System

MUSC's property inventory system was purported to be inadequate to detect and prevent the unauthorized removal of property.

Based on a review of internal controls and a scientific sample of property inventory, the Council found that MUSC's \$29.4 million total inventory is not accounted for properly.

Conclusion

The Council examined the inventory control system and determined that property could be removed without discovery.

(7) Misuse of grant money

MUSC allegedly transfers grant money to inappropriate accounts for uses not included in the original purpose of the grants.

The Council reviewed a sample of fifty-five Federal and foundation grants administered by MUSC during FY 77-78. Tests conducted on the sample included; cost transfers among the funding sources, close out procedures, excessive grant-end costs, adherence to budget and reporting requirements, expenditures for irrelevant items, the transfer of personnel from Federal to State funds, supplies purchased with grant funds and sold to other grants and departments, outstanding commitments remaining unresolved for an excess time, and the consistency of recovering indirect costs from grant sources.

Conclusion

Except as noted below, the Council did not find that grant funds were diverted from authorized grant purposes.

- (a) Project directors have been allowed to transfer costs to related grants by simply informing the Grants Accounting Department by memo which account to bill the expense. Only signed journal entry forms with no supporting documentation or explanation have been used to denote the transfers of expenditures ranging from \$152 to \$370. HEW regulations allow for an expense to be transferred from one grant to another if the following stipulations are met:

When closely related work is supported by more than one funding source, a cost transfer from the originally charged funding source to an HEW grant may be made provided that the transfer meets all of the following conditions:

The cost is a proper and allowable charge to the grant.

The transfer is supported by documentation which contains a full explanation and justification for the transfer and a certification of the propriety of the transfer by the principal investigator, project director, or other responsible program official of the grantee organization. [Emphasis Added]

The transfer is reviewed and approved by a responsible financial or administrative official of the organization.

Expenditures have also been transferred to "L" accounts for payment. "L" accounts are the "funds provided from sources other than the Federal Government for specific

purposes other than research and training" [Emphasis Added]. These transfers are therefore not in compliance with MUSC accounting regulations.

- (b) An examination of four grants indicated excessive spending for supplies at the end of the grant period, totaling \$7,500.
- (c) Two instances were found in which the principal investigators allowed outstanding commitments to remain beyond MUSC's 45-day close out period. Most grantors require a final report 90 days after the project has ended. The Grants Accounting Department, to adhere to the reporting procedures required by the Federal Government, requires the principal investigators to cancel, transfer, or pay all outstanding commitments within forty-five days of the grant end. The two grants which did not meet the requirement were noted to have nine different commitments totaling \$1,665 which were outstanding for 60 to 180 days.
- (d) Three project directors used research funds to buy monogrammed lab coats, nurses' shoes, and supplies apparently unrelated to research. Grant monies should be used solely for approved research related items.

(8) Deficit spending of State research funds

It was alleged that MUSC routinely engaged in deficit spending of State appropriated funds for research. In this case, deficit spending is the practice of spending more than the amount actually

budgeted in one account and using unexpended balances from other accounts to cover these expenditures.

This allegation is not applicable to MUSC since the University is a "lump sum agency." The State Legislature appropriates funds to MUSC in lump sums, and the MUSC Board is allowed to allocate these funds to different areas and departments.

LAC examined the State research funds in use at MUSC to see if the over-expenditures and under-expenditures were excessive. MUSC budgeted \$397,322 in State funds for research purposes in FY 77-78. Of this amount, \$61,256 was placed in a research account for a renowned professor of biometry, \$29,067 was placed in a special cancer research account and the remaining \$306,999 was placed in a research control account to be allocated to individual research projects within the different departments.

Of the control account funds, \$282,168 was spent for 48 State research grants in various departments, \$21,912 was spent in a separate State research equipment account established to meet the different grants' emergency equipment needs, and \$2,919 was not spent by State research but used to cover expenditures in non-research areas.

Total expenditures of the 48 grants were less than 1% above the original amount budgeted. The grants averaged \$5,838 in budgeted funds and \$5,879 in actual expenditures. Of the 48 grants, three incurred actual expenditures that were 10% greater than budgeted. The most extreme over-expenditure occurred in a grant with a budget of \$3,500 and actual expenditures of \$5,164, a 48% over-expenditure.

Conclusion

As a lump sum agency, MUSC has the prerogative to overspend in one area and underspend in another area. It is the Council's opinion that this practice does not provide adequate control and accountability. Good management and budgeting practices would suggest that an institution should budget as closely to actual expenditures as possible.

Over-expenditures and under-expenditures in the State research grant accounts were not found to be excessive. However, the use of the emergency equipment account for additional grant expenditures is preventing all costs from being allocated to the individual grants. As expenses for individual grants are made during the year from the equipment account, these expenses should be transferred to individual grant accounts.

(9) Free medical care and preferential treatment

The Council examined allegations that VIP's (Very Important Persons) in South Carolina receive free medical care and preferential treatment at the Medical University Hospital (MUH).

LAC examined hospital documents and patient folders for several individuals in question. The Council did find examples of special treatment extended to particular MUH patients.

MUSC has six private rooms which are larger than the average private rooms, carpeted and containing nicer furnishings than the other private rooms in the hospital. The patients assigned to these rooms pay the same room charge (\$115 per day) as those patients assigned to the regular private rooms.

Assignment to these rooms is controlled differently than normal room assignments. A list of the special rooms is maintained in Patient Admissions which receives calls from doctors and MUSC officials, requesting rooms for patients on pre-scheduled dates. Hospital staff said patients normally assigned to these rooms include faculty, their families and special patients of MUSC. The staff also said that if the room is needed for an emergency situation the reservation is not honored and the VIP is assigned to another room.

Conclusion

The Council could find no evidence of free hospital care for VIP's. Documents showed that MUSC received payment in full from insurance companies for the treatment provided to these particular patients. LAC concludes that if these VIP rooms are to be maintained, patients requesting occupancy should pay a higher room rate for the additional luxury received.

(10) MUSC employees receive illegal pay raises

LAC addressed this allegation by examining samples of salary increases in FY 77-78 for unclassified and classified employees.

A review of 41 unclassified employees making more than \$20,000 per year was made to determine if the employees had received exceptionally large pay increases. Thirty-three of these employees received salary increases comparable with the cost of living and merit increases granted classified employees in FY 77-78. Eight of the employees, seven faculty members and one administrative employee, received noticeably large pay increases. Review of

these increases found that they resulted from promotions and merit increases which were adequately justified. Only one deficiency was noted, the method by which a professor's salary was split between MUSC and another hospital was not clearly documented.

The Council also examined documentation for 13 classified employees who received large salary increases during FY 77-78. These pay increases were found to comply with State Personnel rules.

In addition, the salaries of 79 employees, taken from a 1977-1978 State Personnel printout, were verified to the MUSC payroll register. No discrepancies were found.

Conclusion

Except for the noted deficiency, the Council could find no evidence supporting this allegation.

APPENDICES

OFFICE OF THE PRESIDENT
(803) 792-2211



Medical University of South Carolina

171 ASHLEY AVENUE / CHARLESTON, SOUTH CAROLINA 29403

March 13, 1979

Mr. George L. Schroeder
Executive Director
Legislative Audit Council
Bankers Trust Tower, Suite 500
Columbia, South Carolina 29201

Dear Mr. Schroeder:

Thank you for the opportunity to comment upon the Council's draft report of its examination of the Medical University of South Carolina.

While it is not your function to comment on major accomplishments of the past, there have been many. The Medical University appreciates constructive comments which will further strengthen the institution. Hopefully, the report will assist the Medical University in effectively using its resources to carry out its mission of education and service to the people of the State of South Carolina.

The enclosed comments upon the report reflect briefly our major observations. We will be delighted to discuss our response with you if you desire. Please call if you have any questions.

Sincerely,

William H. Knisely, Ph. D.
President

WHK:an

Enclosure

MEDICAL UNIVERSITY OF SOUTH CAROLINA
COMMENTS ON AUDIT REPORT OF THE
LEGISLATIVE AUDIT COUNCIL

"Problems Related to Construction Projects"

In 1971, the Medical University of South Carolina (MUSC) spent \$224,193 to repair and maintain a portion of the Quadrangle Building which was constructed in 1913. In 1971, approval at the state level was not required for projects of this nature. The contract to do this repair work was put out to bid, and the Medical University accepted the lowest bid.

The Medical University has never failed to require performance standards of an architect. The comments made are in reference to work done for the College of Pharmacy to permit it to manufacture sterile drugs. Due to a change in Federal requirements during construction, a change order costing \$136,007 was necessary; however, this change was not the result of a failure on the part of the architect.

"Inadequate Record-Keeping Practices"

The responsibility for the construction program is shared by four separate offices. The Director of Physical Plant is responsible for construction management, the Director of Business Operations for fund management, the Controller for accounting records, and the Vice-President for Administration and Finance has overall responsibility for all construction-related activities. While the location of the records may have made them difficult to audit, it does not make them inadequate.

"Unapproved Renovation Project"

The Medical University of South Carolina considered this to be a repair of the 1913 structure, which would normally have been done by MUSC's maintenance force. An overload on the maintenance force at that time required MUSC to contract this work.

"Questionable Funding for Renovation"

The area repaired housed Diagnostic Laboratories; therefore, it was appropriate to use Diagnostic Laboratory funds to repair that building. When renovations have been performed, approval from the State Budget and Control Board has been obtained. All Diagnostic Laboratory revenues have been submitted to the State Treasurer as required by law.

"Violation of Competitive Procurement Law"

The Medical University accepted the lower of the two bids for securing a contractor for the Quadrangle repair; bids were not required for architectural services. The bids were not in strict compliance with state competitive bid practice because MUSC advertised in a trade publication rather than the newspapers.

APPENDIX A (CONTINUED)

"Failure to Require Proper Performance of Architects"

MUSC has very definitive specifications for performance of architects. The specifications are in accordance with generally accepted standards for architects. The Council feels that MUSC's standards are not stringent enough. MUSC will review its architectural performance specifications and consider making them more stringent.

"Deviation from Plans Creates Inefficiency"

The business operations of the University will be further consolidated by combining academic and hospital financial functions in Summerall Center. The decisions relative to use of the parking garage were made to increase the public's use of the parking spaces and to reduce the number of ticketed violations, and thereby improve public relations. These decisions have also resulted in increased parking revenue.

"Mismanagement of the Pharmaceutical Services Division"

A comprehensive reevaluation and revision of the inventory system has been completed and implemented.

"Inadequate Control of Narcotics"

The purchasing of controlled substances has been reduced to small amounts on a weekly basis and controls have been strengthened.

"Unauthorized Possession of Prescription Blanks"

Employees are not authorized to use prescription blanks inappropriately. Any employee found doing so will be appropriately disciplined.

"Violation of Disposal Regulations"

The Medical University has implemented controls to insure that this does not happen in the future.

"Accounts for Entertainment Expense Misused"

It is common practice to provide some entertainment for special functions, and as part of the recruitment process. The funds used for this purpose were generated by professional activities of the staff.

"Problems Related to Aircraft"

"Improper Bid Solicitation"

Federal officials approved the lease of the AHEC aircraft on February 25, 1974. Quotes were obtained prior to leasing the aircraft.

"Failure to Procure at the Lowest Cost"

AHEC did not purchase an aircraft. AHEC leased the plane best suited to its purposes at the most economical rate. An independent consultant from an already established North Carolina AHEC operation recommended the lease of the Beechcraft Baron 55.

APPENDIX A (CONTINUED)

"Unfair Advantage Given to Bidder"

Demonstration of an item or piece of equipment should not be misconstrued as giving an unfair advantage. A sound management decision was made to combine the demonstration with a legitimate business trip of the program. Travel authorizations completed by AHEC indicate the explicit purpose of the one-day trip.

"Failure to Give Preference to S.C. Businesses"

The distributor for Beechcraft for Charleston, South Carolina is located in Atlanta, Georgia. The Beechcraft Company assigned the Charleston area to the Atlanta Regional office; therefore, the Beechcraft Company determined which office would be handling the lease with AHEC.

"Cost and Justification Inadequately Monitored"

Costs have been monitored through the accumulation of comprehensive data for all flights from the origination of the flight request until payment is credited to the revenue account.

In securing the least expensive maintenance, the cheapest hourly rate does not necessarily yield the least expensive overall cost. Down time and length of time required to do the maintenance are important factors.

Programmatic and economic justification for the aircraft was provided the contracting officer of HEW on January 10, 1975. AHEC continues to appropriate funds for air charter travel on the MUSC plane.

"Erroneous Information Provided to the Governor"

The Medical University informed the governor that AHEC was leasing an airplane with the approval of the federal government on July 9, 1974. The Medical University did not inform the governor that AHEC was purchasing an airplane since at that time, AHEC was not authorized to purchase an aircraft and the Medical University was not interested in purchasing a plane.

"Questionable Ownership"

The Bureau of Health Resources Development Contracting Officer approved the aircraft lease proposal on February 25, 1974. Procurement of leased items at the end of a lease period by a contracting agency engaged in federal projects is a common practice.

"Inadequate Property Inventory System"

A comprehensive reevaluation and revision of the inventory system is being undertaken.

"Failure to Report Carry Forward Money"

The Medical University reported the funds in question in accordance with what it believed to be the instructions of the State Budget and Control Board. The funds were reported by source on page 54 of the Medical University of South Carolina Annual Budget Request for 1979-80. In the future, the Medical University will

APPENDIX A (CONTINUED)

report the funds as recommended by the Council.

"Purchasing Irregularities"

"Inefficient Purchasing of Physical Plant Supplies"

It is MUSC policy to purchase materials from vendors who have the best price, the quality required, and the item in stock. Some vendors in this area do not maintain adequate inventories to satisfy MUSC's needs. During the period examined by the Council, many vendors had shortages of some of the supplies MUSC needed.

When several items are needed for one job it is common practice to place the entire order with one vendor who has the lowest price and can deliver all the merchandise when needed. MUSC will continue to strive to improve its purchasing policies based on the Council's recommendations.

"Excessive Year-End Spending"

In any university teaching hospital a great need exists to provide the best, most up-to-date equipment for optimal patient care and for the education of students. As a result, MUSC always has a long list of needed equipment which should be ordered as funds become available.

Most of the year-end equipment expenditures were in the Medical University Hospital. In view of the fact that the hospital must generate 75% of its budget from charges to patients, the hospital is reluctant to order equipment until February or March of the fiscal year. It is illegal for the Medical University to overspend its budget; therefore, the Medical University is careful in waiting until it is assured of available funds to purchase equipment. If the Medical University does not have the funds in February or March, purchases are delayed until funds are available. Any equipment ordered in February or March will not be delivered prior to May or June when the expenditure is made.

"Improper Procurement of Beds"

MUSC made an error in not clearly specifying the minimum requirements for the beds purchased for the tenth floor. The vendor delivered what MUSC ordered. When the error was discovered, the beds were sold to another State agency which could use them; therefore, the State of South Carolina suffered no loss.

"Violation of \$1,500 Purchasing Limit"

Under state purchasing policies, certain items are excluded from the requirement that all bids be issued by the State Purchasing Division. MUSC interpreted this policy to mean that hospital beds which qualify as medical equipment did not have to be bid by the State Purchasing Division. Bids for the hospital beds previously mentioned were solicited and received from Wilmington Hospital Supply, General Medical, and a "no bid" was received from American Hospital Supply.

"State Funds Support County Indigents"

The Medical University agrees with the findings of the Council and supports a state-wide medical indigency bill to assure the medical care of the poor and the fiscal integrity of the counties and the State.

APPENDIX A (CONTINUED)

"Inadequate Student Loan Collection"

The Medical University has taken steps to improve performance in this area. It should be noted that a recent study by the Commission on Higher Education revealed that the Medical University has the best performance record in this area of any institution in the state.

"Professional Staff Office"

The Medical University concurs that these expenditures should be budgeted at the beginning of the fiscal year.

"Intra-Institutional Transfers"

The Medical University appreciates the Council's recommendations and will incorporate them to further refine its management information system. Intra-institutional transfers are transfers of costs from one department to another within the Medical University. For instance, when the accounting department uses computer services, an intra-institutional transfer is processed to charge the accounting department and credit the computer center. It is simply an internal process to more clearly identify costs for particular departments and to provide good cost-effective management.

"Illegal Discounts to MUSC Employees"

The Medical University has had a written policy of discounts to employees for a number of years. The cost of this item compared to the benefit gained by MUSC makes it a wise investment.

"Delinquent Merit Reviews"

The Medical University of South Carolina currently has no delinquent merit reviews.

"Nepotism"

South Carolina Code 8-5-10 exempts the Medical University of South Carolina from the nepotism law. Only in a very special circumstance should highly qualified husband and wife research teams be allowed to work together in the same department.

"Payment of Wages not Due to an MUSC Employee"

With his supervisor's permission, the employee attended one course during working hours and adjusted his work schedule to fulfill the 40 hour per week requirement. No unearned wages were paid. Employee development is considered to be a positive personnel policy.

Chapter III

"Educational Programs"

The section of the report on programs is even-handed, objective, and reflects a basic educational component of the four colleges audited. As stated by the

APPENDIX A (CONTINUED)

auditors, it does not, nor was it intended to reflect the full impact of the programs on the State. The several accreditation visits to the College of Pharmacy reflected only administrative and curriculum change related to advances in pharmaceutical education and were not due to any internal difficulties.

Chapter IV

"Review of Allegations"

"Excessive Travel"

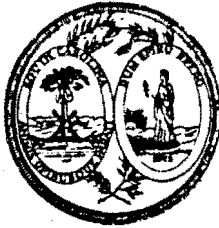
A study of the chronological distribution of scientific meetings has been conducted. This study indicates that 54% of all health related organizations meet in April-June, 37% in January-March, and the remaining 9% in July-December. If a comparison of travel expenditures is to be made, the comparison should be made of similar health-care institutions where travel to scientific meetings is necessary to remain abreast of changing, technological advances.

"Misuse of Grant Money"

The Medical University uses grant monies solely for approved research related items. Determination of research related items is made by the Principal Investigator. These decisions are subject to review by periodic institutional, independent, and federal auditors.

"Free Medical Care and Preferential Treatment"

A price differential in private rooms existed prior to 1976. This resulted in a low occupancy rate for these rooms. Economically, it is better to have a patient in the room at the prevailing private room rate than to leave these rooms vacant and earning no revenue.



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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Albert G. Randall, M.D., M.P.H.
Commissioner

Sims-Aycock Buildings
2600 Bull Street, Columbia, SC 29201

March 15, 1979

Mr. George L. Schroeder
Executive Director
Legislative Audit Council
Suite 500
Bankers Trust Tower
Columbia, SC 29201

RE: Statements Regarding DHEC
as Contained in the Medical
University Audit

Dear Mr. Schroeder:

Thank you for allowing me to comment on the statements made regarding DHEC as contained in the as yet unreleased audit of the Medical University.

In response to a statement in the published edition of the audit, I would submit the following three paragraphs.

The Bureau of Drug Control employs only eight (8) inspectors who may, under the provisions of §44-53-490, conduct inspections or audits, and who conduct a total of approximately 750 inspection audits per year. There are approximately 5700 controlled substances registrants. Since retail pharmacies dispense the vast majority of controlled substances in this State, an arbitrary priority is placed upon this class of registrant. Inspections of pharmacies yields indirect inspections of some 4600 physicians and dentists through inspection of the prescriptions issued by these practitioners.

Because of the vast size and record keeping provisions attendant to the larger state-owned facilities, the Bureau has not been justifiably able to commit the total resources of the Bureau to these state facilities for the extended period of time that it would necessitate to perform a proper inspection and audit.

Letter to Mr. George Schroeter
Page 2
March 15, 1979

We would agree though, that with additional support these and other facilities could be audited more frequently and it would be our hope that examinations such as yours will help to confirm the validity of our repeated request for support and obtain the additional needed resources.

Sincerely,

A handwritten signature in cursive script, appearing to read "Albert G. Randall".

Albert G. Randall, M.D., M.P.H.
Commissioner

AGR/dgt

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